

SATURDAY, JUNE 1, 1872.

ORIGINAL LECTURES.

ON FIBROID TUMORS OF THE WOMB.

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LECTURE III.

THERE is no cut-and-dried method of dealing with uterine fibroids: their treatment is essentially a combat with symptoms. For your guidance, a few broad rules may be given, but much must be left to your own good sense. You will have to act either on the defensive or on the offensive; and I shall therefore divide the treatment into the *palliative* and the *radical*. The former aims to accomplish the following ends: (a) To stay the hemorrhage; (b) to allay pelvic pains and uterine colic; (c) to lessen the inconveniences arising from the weight and bulk of these fibroids; (d) to check their growth.

To stay the hemorrhage is the most imperative of all the indications, and as such I shall dwell on it somewhat fully. A day or two before the one on which the menses are expected, relieve the precursory engorgement of the pelvic viscera by a saline cathartic, and put your patient to bed, where she is to stay during her sickness. Such rest—and I mean rest in the widest acceptation of the term, both functional and physical—will alone often work like a charm. If it fails, give a teaspoonful of the fluid extract of ergot every fourth, sixth, or eighth hour, according to the urgency of the symptoms. Ergot is here our sheet-anchor. In the interstitial variety it rarely fails to do good, but in the submucous it will occasionally increase the hemorrhage. Iced enemata and the application of warmth to the spine are important adjuvants to the foregoing treatment. Next to ergot, gallic acid is the most valuable hæmostatic. Given in large doses,—say twenty or thirty grains every second, third, or fourth hour,—I know nothing better to check the most alarming hemorrhages, either from the womb, as in menorrhagia, or from the bowels, as in typhoid fever. When serious emergencies of this kind arise, to give smaller doses is mere trifling. Any table-syrup will disguise its taste and reduce its bulk. Sometimes you will succeed best by combining ergot with gallic acid; and to this you must often add laudanum enough to allay the severe pelvic and uterine pains. Leeching or scarifying the cervix a day or two before, or even during, the menstrual flux, will relieve the local congestion, and very materially lessen the bleeding.

During the intervals between the menses, or between the intercurrent hemorrhages, some intelligent treatment must be adopted. To supply the waste of blood, iron in some form is indicated; not given alone, however, but in combination with such medicines as lessen the congestion of the womb. For this purpose, ergot and Indian hemp sustain the greatest reputation. Digitalis and arsenic have many advocates, and so has ipecacuanha. All these remedies must be given in doses as large as can well be borne. McClintock recommends small doses of the bichloride of mercury; and Spencer Wells, a free exhibition of an infusion of Vinca major,—the greater periwinkle of our gardens,—in the proportion of two ounces to twenty of boiling water. I have had no experience with it; but, with such a recommendation, it is worthy of trial. A favorite mixture of my own consists of equal parts of muriated tincture of iron, dilute phosphoric acid, fluid extract of ergot, and cinnamon-water. Of this, one teaspoonful is to be taken after each meal, in a wineglassful of water.

What are you to do if the hemorrhage is not checked by these means? Inject subcutaneously from two to four grains of ergotine, and if in fifteen minutes there is no response you may at once proceed in the usual way to tampon the vagina. But let me here say that it is far better to plug up the os uteri than the vagina, for you will then not only stay the existing hemorrhage, but will also, as you will shortly learn, lessen the tendency to future ones. For this purpose, either squeeze into the os the largest sponge-tent possible, or else, as Palfrey* suggests, expose the cervix by a speculum, hook down the anterior lip, and then, with a sound, pack little by little into the os and uterine cavity all that you can of a long and narrow strip of lint. First dip the lint into a saturated solution of Monsel's salt, and also, for convenience of removal, leave a short tail outside of the os. To this practice the objection has been made that the blood, accumulating in the womb, would force open the Fallopian tubes and escape into the peritoneal cavity. From spasmodic uterine contractions excited by the admission of air, this very fatal accident, it is true, happens so frequently after nicking an imperforate hymen, as to make that operation a very dangerous one. But the locked-up menstrual secretions are tarry and uncoagulable; whereas the blood from a fibroid readily clots. Further, were the objection to the tampon valid in this instance, it would be so also in any case of hemorrhage from the non-gravid womb. Either sponge-tent or tampon of lint should be left *in situ* for twenty-four hours, but not longer, as by this time it will have become fetid. If necessary, a fresh one may then be introduced, to be removed after the same lapse of time. Of these two methods, I much prefer the former; that is to say, whenever the sponge-tent answers the purpose and the blood does not ooze past it. For it is a curious and an unexplained fact, that whatever dilates the cervical canal of a womb containing a fibroid tends to lessen the frequency and duration of the hemorrhagic attacks. Repeatedly, after using a sponge-tent, either for diagnostic purposes or as a tampon, have I seen the hemorrhages much diminished for weeks and even months.

To impress this fact upon your minds, and also to show you the worthlessness of unskilled assistants, let me speak to you a moment about one of our patients, whose attendance to-day I forgot to engage. She is thirty years old, six years married, sterile, and was reduced almost to translucency by a steady dribbling of blood from a submucous fibroid. Three months ago I passed up successively three sponge-tents before I could sufficiently dilate the cervical canal. Since their introduction she has gained in flesh and color, and has no hemorrhage other than that attending her menses. While I was introducing the last tent, a neighbor, who was holding a glass lamp containing kerosene, without giving us the slightest warning fell over backwards in a fainting-fit. My patient, having at that moment a base-expanding speculum in her vagina, could not move, but she made ample amends by uttering shriek after shriek in apprehension of an explosion. I first sprang for the lamp, that was rolling over the floor in a ball of flame, and, after getting my hands well scorched, succeeded in putting it out. I then groped for our assistant, who was doubled up against a chest of drawers, and soon brought her to with the contents of a pitcher. We all had a hearty laugh over this adventure, but it was cut short by my patient's going off into a violent fit of hysterics.

Let us advance a step farther; for, to combat this most formidable of symptoms, we must be armed at all points. You cannot keep a woman always tamponned, and yet, when you remove the tents, she may bleed as

* Medical Press and Circular, vol. vii., 1869, p. 516.

badly as ever. Inject now into the uterine cavity one or two drachms of the tincture of iodine, or of a saturated solution of Monsel's salt. This rarely fails. But you may ask me, If this is so effectual a remedy, why delay it?—why not resort to it at first? I answer, Because all intra-uterine injections, for reasons with which you are familiar, are attended with some risk; and doubly—yes, trebly—so, if the os has not been previously dilated.

Should the hemorrhage still keep on, or return, you must now permanently dilate the cervical canal to the extent of easily admitting your index-finger. This is done by incising the whole canal, either bilaterally with the hysterotomy, or at several points with a probe-pointed and curved bistoury. In performing this operation, it is best to expose the cervix by a speculum, and to steady the anterior lip with a small tenaculum. Whenever the cervix is thinned down, and the os reduced to a mere rim, a strong pair of curved scissors will readily slit its margin. In case the cervix is long and not at all effaced, my own practice is to try a graduated series of sponge-tents before resorting to the knife.

As intelligent men, you will demand the *rationale* of this operation. This I cannot give, for the resulting benefits are empirical facts, which you must take on trust. Some writers hold that large vessels are divided by this incision, and that an important supply of blood is thereby cut off from the tumor. This, however, does not explain the good effects of a sponge-tent. Others, that more room is thus gained for the tumor, and the veins are then relieved from the engorgement due to pressure. Finally, there are those who contend that the enlarged os, by furnishing an open channel, prevents such an accumulation of blood and mucus as might distend the uterine cavity and stretch open the mouths of its sinuses. Choose whichever explanation you prefer; to me, they all seem forced.

After such an incision of the os uteri, the hemorrhages will often remain for months in abeyance. But should they start again to any alarming extent, you hold in reserve yet another, and that the last plan. It is one devised by that distinguished ovariologist, Dr. Washington L. Atlee,* and one which he finds invariably successful. After well dilating or incising the os uteri, a long-handled bistoury, curved and probe-pointed, is passed up into the uterus as far as the guiding finger will reach, and then is drawn firmly down over the tumor, freely dividing its capsule and cutting into its substance to a depth of about half an inch.

Stripped of its power to bleed, a fibroid is shorn of much of its power to do harm; but there will remain for treatment pelvic pains and vesical and rectal tenesmus. Rest will also here prove of avail. When the tumor becomes too large for the pelvis, if not too firmly impacted or adherent, it must be dislodged and pushed up above the brim; and, by the way, this manœuvre has succeeded in putting a stop to an obstinate hemorrhage. To effect this, put the woman on all-fours, introduce two or more fingers into the vagina, and, for fear of exciting an attack of peritonitis, gently graduate the force to the resistance; bearing in mind that less will be needed if the tumor be pushed up by an upward and a lateral pressure, so that it may partly rotate on its axis, and thus rather skirt the sacral promontory than pass over it directly upwards. This spiral movement you will find extremely useful in the reposition of a retroverted womb, whether empty or gravid.

More commonly at the menstrual periods, but also at other times, the womb is excited to extrude the foreign body. These uterine colics will tax all your skill and tact. The early use of morphia by the mouth must be avoided, as that drug soon becomes a diet. Begin with

hyoscyamus or belladonna, or with vaginal suppositories of morphia and belladonna,—say, one grain of the former to two of the latter. I am indebted to my friend Dr. E. L. Duer for the following method of uterine medication, which you will find very convenient in country practice: A teaspoonful of glycerine, containing the anodyne, is poured into a hollow made in the centre of a thin sheet of cotton-wool not quite so large as one's palm. The edges being now gathered up and securely tied, there will be formed a small tampon, which the woman can herself pass up into the vagina. For convenience of removal, the ends of the string should be left long enough to hang out of the vulva. In very severe attacks of pain, a hypodermic injection of morphia will often be needed. On the whole, I think the cannabis indica is the best narcotic with which to begin your treatment; for it has the double property of relieving pain and of restraining uterine hemorrhage. You may sometimes be tempted to use the hydrate of chloral; but give it cautiously and watch its effects, for in my hands it has certainly increased the bleeding. Perhaps, by weakening the action of the vaso-motor nerves, this drug increases the calibre of arteries, and thus tends to excite hemorrhages.

To lessen the inconveniences arising from the weight and bulk of these tumors, various forms of pessary may be used. But they are available only when these fibroids are small enough to move about freely in the pelvic cavity. Whenever they are too bulky to sink very low into the pelvis, or, having been pushed up, you wish to maintain them above the brim, external support must be resorted to. An elastic belt, stiffened by slips of whalebone and kept in position by a perineal strap, will then give much comfort by relieving the pelvic viscera from pressure. Frequent baths will also assuage the vesical and rectal tenesmus.

To check the growth of these tumors, you will advise total abstinence from sexual intercourse, more or less of the recumbent position, loose dresses, a somewhat sedentary life, and a spare but wholesome diet. You will also give such medicines as are known to lessen the flow of blood to the reproductive organs. This class of remedies comprises ergot, digitalis, cannabis indica, borax, and the bromide and iodide of potassium. These may be given singly or in combination. Every means must be used to prevent portal and pelvic congestions. With this object in view, the contents of the bowels must be kept soluble, and rest strictly enjoined before, during, and after the menstrual flux. Broken-down constitutions fearlessly build up by vegetable and mineral tonics; by stimulants only very exceptionally. All growths thrive best in a cachectic soil.

Give comfort to your patient in her sore estate; brighten up her hopes, and above all distract her attention from self. The correlation between mind and matter is not the mere postulate of the metaphysician. Shrewd observers have noticed that too much heed given to any one organ determines the blood to it. It is not, therefore, by a mere coincidence that specialists, with the lucky exception of gynæcologists, are very likely to die from the very diseases which they treat. In a valuable communication to the *Journal of Mental Science*, on the "Influence of the Mind upon the Body," Dr. D. Tuke proves, by very forcible illustrations, that "Thought strongly directed to any part tends to increase its vascularity, and consequently its sensibility;" and, further, that "There is no sensation, whether general or special, excited by agents acting upon the body from without, which cannot be excited also from within by cerebral changes (including those associated with emotional excitement) affecting the sensory ganglia."

By these means, and by those previously enumerated, you will very generally succeed in tiding your patient safely over the perils of the menstrual period of her

*Trans. American Medical Association, 1853, p. 558.

life; and, the climacteric once reached, her future will thereafter be one of comparative comfort.

We come now to the radical treatment of these tumors; and here I cannot promise you so large a measure of success. Can a uterine fibroid ever be discussed by therapeutic measures?—is a question still agitated by the medical world. Out of a horde of discordant units it is not easy to strike a fair balance, but the weight of evidence undoubtedly inclines to the negative side. And, yet, why should not such cures happen? How is it that means tending to restrain growth cannot also tend to cause absorption? Consider, further, the histological resemblance of these fibroids to the hypertrophied womb. If in the one a process of involution takes place from a diminished supply of blood, why cannot a like process be brought about in the other by a like cause? But positivism is the watchword in scientific research, and the question, therefore, should not be, "What ought to be?" but "What is?" In answer to this question, I must candidly admit that theory is here not sustained by practice, and that very few typical and trustworthy cases have been reported of cures effected by internal remedies. Perhaps one reason of this is (you see how reluctant I am to yield this point), that, the treatment being a long and tedious one, the patient either gets disheartened and gives it up, or else goes from one physician to another. I have seen certainly two cases in which the fibroid slowly shrank away coincidentally with—I hardly dare to say, under—the persistent use of iron and ergot. I can also testify to the marked diminution of a very large fibroid after the long-continued friction of an ointment composed of eight grains of the biniodide of mercury to the half-ounce of lard. I was led to the use of this ointment from observing its good effects in goitres: the part anointed should be exposed to the rays of the sun until a burning sensation is felt. At the suggestion of Dr. Atlee, who has obtained success from its use, I am now trying the internal administration of the muriate of ammonia. It should be given for months thrice daily, in ten-grain doses, disguised in liquorice-powder. Simpson lauds the bromide of potassium; but very few stomachs can bear it for any length of time. McClintock reports good results from the use of the chloride of calcium. Very recently M. Guéniot has proposed the absorption of fibroid tumors by such agents as tend to produce fatty transformation of tissue. According to C. Bernard, these steatogenetic substances are arsenic, phosphorus, and lead. By stimulating the trophic nerves to greater activity, the continuous galvanic current has caused retrogressive changes in these tumors. I look upon this agent as one yet in its infancy, and as one from which much may in the future be expected.

Of course, when a fibroid is dormant you must let it alone. But, supposing the case to be an urgent one,—the hemorrhage uncontrollable—the bulk-pressure unendurable,—can these fibroids be removed or destroyed? This question brings up the important consideration of their surgical treatment proper. This I shall make brief, because no surgical method for their radical treatment has yet received the unqualified sanction of the profession. There is no doubt that, by the continuous peristalsis of the uterine fibres, both the interstitial and submucous fibroids tend to become polypi,—the one (true) by the formation of a stalk, the other (false or naked) by spontaneous enucleation. Now, if we take this hint from nature, and aim to aid her in bringing about these changes, we shall do the least harm; for the removal of either true or false fibroid polypi is recognized by all surgeons as a legitimate operation.

The simplest and safest method of effecting such an extrusion of this fibroid is to dilate the os by several incisions, and to keep up a persistent contraction of the uterine fibres by the continuous use of ergot. If, how-

ever, there should be no disposition on the part of the fibroid to become polypoid, it seems to me that you would be justified in incising its capsule with the curved and probe-pointed bistoury, as Atlee recommends, or with a straight and pointed bistoury, wrapped with lint to within half an inch of its point, as advocated by Matthews Duncan.* In the former operation the finger will be the guide; in the latter, the duck-bill speculum is first introduced, the uterus is next fixed both by suprapubic pressure and by a tenaculum in the os, and then an incision, one inch in length and half an inch in depth, is to be made into the most prominent portion of the tumor. The finger should at once be passed into the incision, in order to separate the lips of the capsule and break up its attachments. If the tumor is not very large, and within easy reach, the operation may then and there be ended by enucleation, aided, if necessary, by avulsion,—that is, by forcibly tearing the fibroid from its bed by strong volsellæ. This measure of success, however, can rarely be attained at one sitting: nor is it unattended with danger. More in accordance with nature, and less rude, does the expectant plan seem to me,—viz., after the incision, to depend for the further extrusion of the fibroid upon the expulsive property of ergot and upon repeated attempts with the finger at enucleation,—resorting to avulsion only after the lapse of weeks, or even months; and let me here remark, that as much force will often be required to tear out a naked fibroid from its bed, as in difficult forceps-labors. All operative interference with fibroids should, as a rule, be postponed to two or three weeks after the os has been incised, so as to give time for the cut surfaces to heal, and thus lessen the risk of purulent absorption. Nor should these radical operations be undertaken directly after a serious hemorrhage, but after the woman has rallied from its effects. Any oozing of blood following enucleation can be checked by swabbing out the uterus with a saturated solution of Monsel's salt. Of course, whenever the discharge becomes offensive, intra-uterine injections of disinfectants must be resorted to.

A few surgeons have succeeded in curing their patients by coring out a piece from the heart of the tumor, and plugging up the cavity with lint dipped in olive oil. The tumor then breaks down, and comes away in fragments and putrilage. The same end has been attained by the actual or potential cautery; and also by passing an electric current of high power through the growth, by means of sharply-pointed steel rods thrust deeply into its substance. There is one serious objection to these operations: the process of disintegration, being always a slow and offensive one, is attended with much risk from pyæmia.

In some cases of fibroid tumors, the uterus, together with its appendages, has been removed. But out of 35 cases, tabulated by Thomas,† 28 died from either shock, peritonitis, or hemorrhage. Yet this wholesale extirpation is an operation more successful than that of the enucleation of growths from the peritoneal surface of the womb. Hemorrhage has here been the almost invariable cause of death. The removal by gastrotomy of the pedunculated outgrowths is much less fatal; but yet so much so as to deter many ovariologists from undertaking it. Accumulating experience, however, tends towards interference in these cases, and I do not see why the same measure of success as in the removal of ovarian cysts should not be attained.

When complicated by the presence of a fibroid in the lower segment of the womb, or of a pedunculated one impacted in the retro-uterine space, labor is attended with difficulties of the most formidable character. The

* *Edinburgh Medical Journal*, vol. xii., 1867, p. 713.

† *Diseases of Women*, 3d ed., p. 501.

unaided efforts of the woman are usually unequal to driving the head past the obstruction. Rupture of the bladder or of the womb may occur, and, even after a successful delivery, a terrible flooding is liable to take place. In all cases of foreseen obstruction from this cause, if called in soon enough, your duty is clearly to induce labor at as early a period of gestation as the necessities of the case may demand. If these are not urgent, stave off this operation until viability is reached; on the other hand, keep no terms with that fœtus which threatens the life of its mother. But, should labor at term have set in before you are summoned, no one plan of treatment can be laid down; the occasion will exact all your pluck and skill. If the tumor is movable, push it up out of the way, and, in order to prevent it from falling back, at once apply the forceps. If it cannot be dislodged, deliver either by the forceps or by version; by so doing you save the woman's forces and lessen her risks. If cystic, reduce the bulk of the tumor by the trocar. If within easy reach, and wholly in front of the child's head, attempts at enucleation may be made. Craniotomy will often be demanded; and, whenever the pelvic inlet is reduced to a mere chink, there will be no alternative but the Cæsarean section,—an operation, under such circumstances, almost necessarily fatal from hemorrhage. In these dreadful cases, two broad rules may, I think, be laid down for your guidance: Whenever you feel convinced that the child cannot be born alive, perforate and crush its head early, so as to diminish the chances of injury to the tumor. Whenever you are in doubt as to this, give the mother and not the child the benefit of the doubt. Should post-partum hemorrhage occur, ply your patient with large doses of ergot, and swab out her womb with Monsel's solution.

By the presence of a fibroid in the upper segment of the womb, labor may indeed be protracted, but it will not be obstructed. Yet, for reasons previously given, the woman's life will be imperilled by peritonitis, septicæmia, dangerous floodings, and uterine tenesmus. The rule here is to turn or to apply the forceps and deliver as speedily as possible, so as to save the tumor from prolonged pressure. Should your advice be sought during the early months of gestation, your duty will not be so clear. If the tumor be subperitoneal, no matter how large it may be, or if a submucous or an interstitial one not much larger than an orange, let the woman go to term. But if it be an interstitial or a submucous one of greater bulk, I should be disposed to follow the teachings of Nature, who in these cases usually abridges the term of gestation. This advice, gentlemen, is not without appeal; I give it with diffidence; and yet it is one which, I believe, you will unhesitatingly adopt whenever your patient happens to be one near and dear to you.

ORIGINAL COMMUNICATIONS.

ON SOME UNUSUAL FORMS OF INFLAMMATION OF THE CORNEA AND IRIS.

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DURING the past summer and winter I have had my attention called to some rather unusual and very obstinate forms of kerato-iritis, which occurred in quite a number of patients of all ranks and conditions of life; two of whom had applied for treatment for other affections, and were not aware that they were suffering from any disease of the eye; and these two cases impressed me very strongly with the necessity of examining the iris very carefully, as an important aid, in a

difficult diagnosis. The patients were all adults, and most of them were charity-patients who had applied at the dispensary or hospital for treatment. Some, however, were in comfortable circumstances, and two belonged to the higher classes of society.

The main characteristic of all the cases was the obstinate nature of the affection, which usually resisted all the ordinary methods of treatment. In all but two of the cases there was some constitutional taint,—either scrofulous, rheumatic, or syphilitic,—which might be looked upon as the proximate, if not as the predisposing, cause, and against which I had to contend. Another peculiarity was the tendency to exacerbation, and even to actual reappearance of the disease after apparently a complete cure. The fact of the commencement of the affection occurring in the cornea or in the iris seemed to make no difference in the prognosis or duration, except that the inflammatory action was propagated more quickly from the cornea to the iris than in the opposite direction. In no case was any other constituent of the eyeball involved in the process than the cornea and iris, although the aqueous humor was always cloudy.

When, in a case of iritis, the inflammation is isolated, confined to a portion of the iris, and the tissue is much swollen and contains deposits of new growths of a yellowish color, we may say with a good deal of certainty that syphilis is the cause. It depends somewhat upon the period in the disease at which the physician sees the case. If the iritis commences very soon after the appearance of the primary sore, it requires much longer for this specific appearance to show itself; and the later the iritis appears, the more quickly does it assume the specific form. By statistics, we know that from one-half to three-fifths of those persons who have suffered from iritis have had primary syphilis. An ordinary non-specific iritis reaches its acme rapidly, and then declines; but a specific iritis has an interrupted alternating progress, sometimes violent, sometimes light, and always lasts a long time. The non-specific variety is much more sensitive to atmospheric influences, while a patient with the specific form can easily be treated clinically. The latter, if it be of the plastic variety, is far more often accompanied by complications than the non-specific form; and the longer it lasts, the more frequent are the complications. The most frequent complication is choroiditis, next a plastic effusion into the vitreous humor, and then a detachment of the retina. Peculiar forms of retinitis also occur,—one confined to the inner layers of the retina frequently causing localized scotomata, and another form confined to the outer layers. Hence in all specific cases we should examine accurately the acuteness and field of vision. One of the rarest complications is a deposit of the same yellow nodules in the episcleral tissue. The more chronic the iritis, the greater is the certainty of the presence at the same time of opacities in the vitreous. Detachment of the retina may or may not be present. If it be, the eye will be found to have lost in intraocular tension. If the opacity of the vitreous be dense and diffuse, detachment of the retina is probably present.

According to Von Gräfe, in all forms of iritis the most frequent cause of relapse or exacerbations is the adhesion of the iris to the anterior capsule of the lens. This, I think, is wrong, for it leaves entirely out of the question any influence which may be exerted by rheumatism, syphilis, or any other constitutional taint. Still, adhesions of the iris to the capsule are a great predisposing cause; and the broader the adhesion, the greater is the danger of an exacerbation; and we have more to fear from one broad synechia than from a number of narrow ones. Complete circular adhesion of the pupillary border of the iris to the anterior capsule, of course, separates entirely the anterior from the posterior chamber; and usually, in such a case, the iris

is rendered prominent or ridge-like by the fluid in the posterior chamber. This condition sometimes leads to a detachment of the pigmentary layer from the remaining part of the iris, and may induce a secondary glaucoma. No general rule can be laid down as to what cases lead to a relapse; even when the posterior synechia is complete, cases have been observed where there has been no relapse.

In most of the cases to be mentioned, the iris was discolored and swollen, but in none of them was the pupil closed by an exudation. The cornea was generally diffusely cloudy, while in several cases there were circumscribed opacities, into which small vessels extended from the corneal border. The diffuse opacity of the cornea was not usually very dense. The forms of keratitis which, as a rule, induce iritis, are those which lead to destruction of the cornea, like the true circumscribed variety, and the torpid purulent infiltration. But in none of these cases was there any destruction of corneal tissue. Circumscribed opacities here showed no tendency to produce necrosis. The fact of an iritis and a keratitis being associated together is, of course, explained by the fact that the cornea and iris draw their supply of blood from a common source. In none of these cases was there any tendency to sclerosing of the cornea, nor to ulceration and perforation; nor is there any permanent opacity left behind. The iritis was almost always serous,—occasionally purulent, but never plastic. Two of the cases occurred in children, and were associated with Hutchinson's teeth and other symptoms of congenital syphilis.

Case I.—N. H., aged 40, married, England, miller, applied for treatment at the New York Dispensary July 6, 1871. The patient admitted having contracted primary syphilis some two months before, but said that previously he had always been a healthy man. About ten days before date he commenced to have a great deal of pain in his right eye, which was aggravated towards night, and accompanied by photophobia and profuse lachrymation. An examination revealed a serous iritis,—considerable ciliary injection, turbidity of the aqueous humor, and immobility of the pupil. The iris was very much swollen, and the anterior chamber was very deep, so that the iris seemed to be drawn backward. There was also an eruption of roseola upon his face, neck, and arms. He was treated by mercurial inunction, a drachm of the ungt. hydrargyri being rubbed upon the arm from the shoulder to the elbow every night until symptoms of ptyalism appeared, when the mercury was discontinued and iodide of potassium administered, commencing with five-grain doses thrice daily, and carrying it up to toleration; each dose being accompanied by two grains of chlorate of potassa to quiet the stomach. This treatment was kept up for six weeks, when he was discharged apparently cured. In about a week, however, he came back with the same trouble, complicated by a slight haziness of the cornea. The same treatment was recommenced; but the haziness of the cornea spread, became more dense, vessels made their appearance at the limbus and ran a short distance into the cornea, and I soon had before me a diffuse keratitis resembling very much that occurring in children affected with congenital syphilis. The treatment was pushed vigorously, and in addition iron and quinia were administered, and he was ordered to take a Turkish bath once a week. The disease proved to be very obstinate, and the pain and photophobia were very distressing, so that the patient was obliged to take large doses of opium. Towards the end of the seventh week some signs of amelioration showed themselves; the cornea became less opaque, the vessels gradually disappeared, and the pain diminished; but it was not till the following November that the patient was discharged cured.

Case II.—L. M., aged 30, single, Ireland, seamstress, was admitted to the New York Dispensary July 25, 1871. The patient stated that about four months previous she had been attacked by acute rheumatism, which confined her to her bed for nearly three months; and that she had suffered more or less ever since with pains in her limbs and head. She complained of shortness of breath, and an examination showed a

double valvular murmur, most distinct at the apex of the heart. Four days previously her left eye commenced to trouble her, there being considerable pain and photophobia. An examination showed a diffuse opacity of the cornea, with some small vessels near the limbus; but the iris was not involved, the pupil responding perfectly. Atropia was instilled, and iron and quinia administered, as the patient was very much run down. No trace of any syphilitic history could be obtained. The patient attended regularly for two weeks without any change for the better or worse, when one day she presented herself with an iritis in the same eye. She said that the rheumatic pains in her joints had been very severe for several days previously, and on the previous night the pain in the eye had become almost unbearable. The ciliary injection was very marked, and the iris swollen, discolored, and bulged forward. She was placed upon mercury and iodide of potassium, with chlorate of potassa, and calisaya bark given in place of the iron and quinia. In about a week hypopion made its appearance, evidently from the cornea, which increased so rapidly that a paracentesis of the cornea was rendered necessary, and this had to be repeated twice within two weeks. After the third paracentesis the cornea showed some signs of clearing up, and gradually the vessels grew smaller and the opacity disappeared. The discoloration and swollen condition of the iris, however, lasted for some time longer; and it was only at the end of three months, dating from her first appearance, that she was discharged cured.

Case III.—M. S., aged 33, Poland, married, peddler, was admitted to the Manhattan Eye and Ear Hospital August 4, 1871. About two years previously, the patient had contracted primary syphilis, which was followed by a cutaneous eruption, sore throat, and alopecia; and more recently he has suffered severely from osteocopic pains. About one week previous to his admission, his right eye became inflamed and very painful, causing great impairment of vision. On examination, the anterior chamber was seen to be very deep, the iris discolored and swollen, the aqueous humor turbid, and marked ciliary congestion; but the cornea was not involved. Leeches were ordered to be placed on the temple, and mercurial ointment recommended to be rubbed on the arms every night. Atropia was instilled every two hours. At the end of the fifth day symptoms of ptyalism appeared, and the mercury was therefore discontinued and iodide of potassium and chlorate of potassa administered. Gradually the pain increased in severity, and though the patient was taking large doses of opium at night, he could gain no sleep. August 11, paracentesis of the cornea. August 16, cornea involved in a diffuse opacity, but no vessels visible. Leeches to the temple, and paracentesis of the cornea. August 18, patient's appearance very anemic. Pain still very great; paracentesis of cornea. From this time on, the pain grew gradually less, but the ciliary injection and opacity of the cornea remained. Iron and quinia were administered, as well as the potash. The patient remained under constant observation, and the kerato-iritis was distinguished by a number of exacerbations and remissions; but the opacity of the cornea remained after all signs of iritis had subsided, and it was not till November that the patient was discharged cured, with normal vision. On December 1 he reappeared, with a pronounced kerato-iritis of the left eye, marked ciliary injection, turbidity of the aqueous humor, diffuse opacity of the cornea, and swelling and discoloration of the iris. The patient complained of great pain, and a paracentesis of the cornea was performed. A four-grain solution of atropia was ordered to be instilled every two hours, and the patient was placed under the influence of mercury by the inunction method, followed by iodide of potassium and chlorate of potassa. The affection has proved very obstinate in this eye,—the man being still under observation. He has had five paracenteses at irregular intervals, and at present the pain is very slight and the opacity of the cornea has almost disappeared; but the iris is still inflamed and discolored, and the tension of the globe increased.

Case IV.—F. G., aged 18, United States, single, was sent to me by a medical friend for treatment for his eyes. The patient had applied to the doctor for relief from a chronic rheumatism, and was entirely unaware of any disease of the eyes. He stated that he had never been perfectly well, and when thirteen years old he was attacked by acute articular

rheumatism, which had become chronic, and recurred at irregular intervals,—sometimes confining him to his bed for weeks. The superficial cervical glands are enlarged, and at present he complains of severe headache, located in the occiput. An examination revealed the existence of a serous iritis of the left eye,—the iris being discolored and swollen, and the pupil insensible to light,—but no cloudiness of the aqueous humor, and no opacity of the cornea. The patient did not complain of pain, and there was a very moderate amount of ciliary injection. Vision was normal in both eyes. Owing to the general cachectic condition of the patient, mercury was not prescribed; but he was ordered to take a mixture of the iodide of potassium with the iodide of iron, and quinia was administered in the form of pills. Atropia was instilled every three hours. Four days later, he presented himself with a commencing opacity of the cornea, and numerous small vessels could be traced for a short distance from the limbus into the corneal tissue; and he complained of considerable pain. The cornea soon became diffusely cloudy, the ciliary injection increased, and the pain became very severe. The tension of the globe became greater, and a paracentesis was performed two weeks after his first appearance. This was in September last, and the patient remained under treatment for three months,—the corneal trouble being the last to disappear. In this case the patient seemed to gain more from the Turkish bath than from any other method of treatment.

Case V.—H. K., aged 43, England, married, roofer, applied for treatment at the New York Dispensary in September last. The patient stated that his health had generally been good, and that he had never had any trouble with his eyes until about three years ago, since which time his sight had been affected. The eyes had several times been inflamed, and he had suffered from frontal headache and *muscæ volitantes*. Shortly before he presented himself for treatment, he had caught cold in his eye; it became red, itched very much, and discharged a great deal of pus. The vision was not at first rendered any worse; but soon the pain grew intense, vision became very much affected, and he complained of a feeling of tension in the eyeball. He had used applications of hot water, tea-leaves, and bandages, but the eye grew rapidly worse. An examination revealed the following state of affairs: tension increased, intense ciliary congestion, aqueous humor turbid, and the iris swollen and discolored. He complained greatly of ciliary neuralgia and frontal headache. There were absolutely no signs of any syphilitic taint. Two leeches were applied to the temple, a four-grain solution of atropia was instilled, and a compressing bandage applied. The next day the pain was somewhat less, and he was placed upon mercurial treatment for eight days, when, symptoms of pytalism appearing, the mercury was discontinued, and iodide of potassium was administered in fifteen-grain doses three times a day, and increased every day, until at one time he was taking sixty-five grains three times a day. On the sixth day, as the tension remained the same, a paracentesis was performed and a bandage applied. On the eighth day, signs of diffuse opacity showed themselves in the cornea, and numerous small vessels appeared running inward from the limbus. Atropia (four grains) was ordered every two hours, and iron and quinia prescribed. The cornea soon became diffusely opaque, and in a day or two pus appeared in the anterior chamber and soon increased to an alarming amount. The anterior chamber was then tapped with a broad iridectomy-knife, the pus evacuated, and a bandage applied; but the next day pus was again found in the anterior chamber. This state of things continued for three weeks, and the anterior chamber was tapped in all eight times. From this time on, the hypopion ceased, but the sluggish character of the inflammation remained, and it was finally decided to perform an iridectomy downwards. This was done, and was followed by a slow but steady improvement. The keratitis and the iritis seemed to disappear *pari passu*, and at the end of the tenth week the patient was dismissed cured,—the potash, iron, and quinia having been continued till the last.

Case VI.—J. S., aged 9, New York, applied at the New York Dispensary in October, 1871, and stated that two weeks previously his left eye had become inflamed, and that his sight was very much affected. An examination showed a diffuse keratitis, a serous iritis with moderate ciliary injection, and

cloudiness of the aqueous humor. The boy had Hutchinson's teeth very well marked, and showed other signs of congenital syphilis, such as enlarged cervical glands, and his general appearance was one of ill health. Throughout the whole course of the disease in this case there was no pain and but very little photophobia, and the tension was never increased. The patient was put upon the use of the iodide of potassium, with the iodide of iron and cod-liver oil, and atropia was instilled four times a day. He did not bear the potash well, and every few days it had to be discontinued. The disease neither advanced nor receded for about five weeks, and then showed some slight signs of improvement. The opacity of the cornea began to clear up and the ciliary injection to disappear, and at the end of the seventh week the patient was discharged cured.

Case VII.—B. L., aged 28, New York, clerk, single, was sent to my office by a friend, for an affection of the eyes of which the patient had previously been unaware. An examination showed a discoloration and swelling of the iris of the right eye, which seemed to be more pronounced in the outer half of the iris, and some slight cloudiness of the aqueous humor. The patient was markedly strumous, and was also subject to chronic rheumatism. Atropia was ordered three times a day, and iodide of potassium, with iron and quinia, administered. The eye gradually grew worse, the cornea became involved, hypopion appeared, and the pain became intense. The anterior chamber was tapped and the pus evacuated, but it slowly collected again, and at the end of a week another paracentesis was performed. Bandages seemed to aggravate the trouble, and the paracentesis had to be repeated. Towards the end of the third week, there seemed to be some change for the better. The hypopion disappeared, and the pain grew less, but the process was very sluggish; and it was not until the end of the ninth week that the patient could be discharged from treatment.

Case VIII.—A. M., aged 11, United States, was brought to me at the New York Dispensary in October, 1871. The mother stated that the child had never been well, and that her eyes had several times been affected, though never so badly as at present. The child was quite small for its age; the complexion was very sallow, the cervical glands were enlarged, and there were signs of some of them having suppurated. She also had as well-marked Hutchinson's teeth in both jaws as I have ever seen. Both corneæ were diffusely cloudy; some small vessels could be traced a short distance from the limbus, and the irides were discolored and swollen. The ciliary injection was not well marked in either eye. The child complained of scarcely any pain, and the photophobia was but slight. This condition of things had lasted for nearly a month before the child was brought to me. The child was immediately placed upon the use of the iodide of potassium with the iodide of iron and cod-liver oil, and atropia was ordered to be instilled four times a day in each eye. This treatment was continued for a month, the opacity in the cornea occasionally clearing up and again returning. At the end of this time the patient was discharged, all signs of inflammation having ceased; but in less than three weeks she returned with a relapse in both eyes, and this time the affection showed itself to be much more obstinate. The same treatment was resorted to; and, as the child did not bear the potassium well, it was given in much smaller doses. The patient is still under treatment, though it is now nearly three months since the recurrence of the attack. The cornea of the right eye is perfectly clear, and all signs of inflammation have disappeared in this eye; but in the left eye the cornea is still somewhat cloudy at the centre, and the iris is still swollen. The child's general health is very much improved.

As before remarked, the main feature in all the cases was the obstinacy shown in resisting treatment. Patience and perseverance, with careful attention to the general health, finally gained the day; and I think fully as much stress should be laid upon a general constitutional treatment as upon the local means employed. It is a general failing of ophthalmologists, I think, that they neglect too often the general health of the patient; and I would urge most strongly the necessity of general treatment.

No. 7 WEST FORTY-SIXTH STREET, N.Y.

THE RATE OF GROWTH OF THE NAILS AS A MEANS OF DIAGNOSING CERTAIN FORMS OF PARALYSIS.

BY S. WEIR MITCHELL, M.D.

I PUBLISHED last year, in the summary of the Proceedings of the Philadelphia College of Physicians, a brief communication, in which I pointed out the remarkable fact that any sudden cerebral palsy arrested the growth of the nails on the palsied side. Since then I have studied the subject with care, and have learned certain facts, which I desire to make public in advance of a paper which will treat more fully of the nutrition of paralyzed limbs.

The facts which are now known to me may be very shortly stated. The growth of nails is usually retarded more or less in all palsied limbs, whether the palsy cause be spinal, cerebral, or belonging to a nerve-trunk. As yet, owing to want of opportunity, I do not know whether or not there is any complete temporary arrest of growth in spinal or peripheral disease and injury. As regards the latter, I am disposed to believe there is not an arrest, but only more or less retarding of growth and deformation.

In cerebral palsies, whether from clot or embolus, there is an entire cessation of nail-growth on the palsied side. Usually when they begin to grow again it is a sign that the power of movement will also improve within a few days. The rate of growth slowly increases, but it generally requires four or five months for such nails to produce an entire length from matrix to free edge. To study the change, I stain the nails of both sides with nitrate of silver or nitric acid; the latter is preferable, because it soaks into and stains of a deepening yellow the whole thickness of the nail. Staining is not, however, essential except for comparison, because the line of arrested growth is marked by a deep groove, which for months may be seen as it passes down the nail, so that when accustomed to the rate of growth the place of this furrow will enable an observer to guess pretty well at the date of the attack of paralysis. The palsy need not be complete to cause this arrest. It is found in cases involving either cerebral motor palsy or sensori-motor paralysis, but as yet I do not know whether or not in the rare cases of pure sensorial palsies of cerebral origin it also exists, nor as yet have I any experience which enables me to say whether or not in sudden spinal palsies there is also complete cessation of nail-growth.

These observations have naturally led me to a close study of the nutritive changes as regards growth and repair of hair and skin in the cases alluded to, but as yet I am hardly ready to speak with confidence upon subjects such as these, which promise to open a rich field in differential diagnosis. It seems to me possible that the nail-growth may not be altered in the same degree by lesions of the cerebrum, cerebellum, pons, and corpus striatum; and I have some observations which appear to point hopefully to these facts of nail-growth, as a future means of aiding us to tell what parts of the brain have been attacked.

Very recently, one distinct and, as I believe, most valuable practical contribution to diagnosis has come out of my observations. It is briefly this:

In all sudden cerebral palsies the nails cease to grow. In hysterical palsies of one limb, or both, whether paraplegic or hemiplegic, the rate of nail-growth is unaltered.

This point was first determined in a case which I saw in consultation with Drs. Koerper and Frické. In a young girl, a long series of hysterical phenomena ended in complete sensori-motor hemiplegia. The nails, being stained, were found to grow equally on both sides. In a later case, seen by my friend Dr. Packard, the hys-

terical palsy was confined to the left arm, and the nails grew alike on the two sides.

A third case was that of a young married lady, who had had many hysterical attacks. She was scared by a wild cow in the street, and, after a cataleptic fit, lost the use of her left arm. Sensation was slightly altered. The nails grew at the same rate on both sides.

Two days later, I saw a middle-aged spinster, who four years before had had a slight attack of right hemiplegia, from which she perfectly recovered. She has mitral disease, and is a most likely person to suffer from palsy. On the 10th of April, 1872, she received a letter which greatly distressed her, and, in consequence, was seized with twitching of the left lower eyelid. A few hours later she became by degrees paralyzed as to motion and sensation on the whole left side. Many of the usual manifestations of hysterical palsy were wanting, and the previous history and the cardiac conditions were such as to make probable an organic cause. I stained the nails on the second day, and, although the palsy was unaltered a week later, the nails on both sides were growing. A few days after, it was clear that the rate of growth was the same, and I therefore ventured to assert that the case was in origin purely hysterical. A very speedy and complete recovery under appropriate treatment verified my prognosis.

I trust that I have said enough to make it appear that if I am correct in my observations, they promise to afford no unimportant addition to our means of discriminating between palsies of functional and of organic origin.

VACCINATION DURING PREGNANCY.

RESULTS OF FORTY-EIGHT CASES.

BY EDWARD W. JAMESON, M.D.,

Resident Physician to Philadelphia Hospital.

THE fact that some physicians entertain the opinion that it is improper to vaccinate pregnant women on account of inducing abortion or miscarriage, leads me to give the result of that operation as practised in the obstetrical wards of the Philadelphia Hospital.

Professor Charles D. Meigs, in his work, "Woman: her Diseases and Remedies," Philadelphia, 1859, p. 597, says, "Pregnant women ought never to be vaccinated. This is a rule I advise you not to depart from even on the most urgent occasion. If a woman have been once vaccinated, and appeal to you to revaccinate her because there is a present variolous epidemic, I hope you will refuse to accede to her request. . . . I have been the witness of dreadful distress from the operation. Eschew it, I entreat you."

This language, strong and confident as it is, has not restrained the resident physicians of the Philadelphia Hospital from vaccinating pregnant women during the past six months.

On the rapid increase of smallpox in this city last fall, all patients entering the hospital were vaccinated, and since the 1st of last October more than one hundred pregnant women have been revaccinated. The operation was done in the receiving-ward with the best virus that could be obtained, selected by Mr. Bender, apothecary to the hospital.

All the crusts looked typical, and were of first-class quality. Cross-barring was the favorite method of vaccinating with most of the physicians.

All the pregnant women in the hospital October 1, 1871, were also revaccinated.

I am unable at this date to give exactly the whole number of cases, their condition at time of vaccination, etc., but can speak with positiveness from January 1 of this year. At that time I went on duty as resident

accoucheur, and, with the assistance of my colleague Dr. Harris, I was able to collect notes of forty-eight cases,—all cases of revaccination; and in some of these the operation had already been performed twice. All the women were in apparent good health, varying in age from 17 to 30 years. I made two insertions in each case, on the same arm, below the deltoid muscle. Most of the patients showed fair cicatrices of previous vaccination in infancy. More than half of the forty-eight cases were advanced beyond five months in pregnancy.

The operation proved successful in all but thirteen cases, and in no case were any unusual symptoms manifested.

Some of the women suffered considerably with their arms, particularly one German woman, advanced in pregnancy over seven months, whom I revaccinated with cowpox. Her arm was swollen from the shoulder to the wrist, and its surface covered with a diffused erysipelatous inflammation. She was delivered at full term of a fine boy. Her labor was natural in every respect. Since January 1 there have been some miscarriages, but they occurred in those in whom the vaccination proved unsuccessful.

These results may dispel the fears and anxieties of some practitioners, and prevent them from withholding from this class the only reliable preventive of smallpox. Our own experience confirms that of other observers.

Tanner, "Signs and Diseases of Pregnancy," sanctions the operation. Other prominent authors whom I have consulted—some eight or ten in number—say nothing about the subject.

Dr. Barnes, in the *British Medical Journal*, March 4, 1871, urges the importance of vaccinating pregnant women if they are at all exposed to the epidemic influence of smallpox, for these reasons:

1. Pregnant women living under epidemic or zymotic influences are more prone to take the prevalent morbid poison than others.

2. Having taken a morbid poison, they are less liable to throw it off. Their excretory organs, charged with the double duty of purifying two organisms, are liable to break down under the burden.

3. The morbid poison then pursues its course into a system which is less able to resist its injurious action. Abortion and a most dangerous form of puerperal fever are very likely to follow. Against this there is certainly a danger of producing abortion by vaccinating a pregnant woman; but this, Dr. Barnes thinks, occurs only in women in whom a miscarriage is imminent.

In the London *Lancet*, February 3, 1872, George Yarrow, a public vaccinator, speaks of having notes of twenty cases of pregnant women which he has revaccinated, and remarks that he must have vaccinated many more, and never hesitates to perform the operation. He refused to vaccinate in but one case, and she habitually aborted.

A CASE OF OPIUM-POISONING.

ARTIFICIAL RESPIRATION THE MEANS OF SAVING LIFE.

BY CHARLES E. SMITH, M.D., and H. C. HAND, M.D.,
St. Paul, Minnesota.

C. W., æt. 24, having been in trouble and drinking freely for several days, on the 4th of April, 1872, drank more freely than before. At 7 P.M. he went to his room, where his brother found him at 7.30 sleeping soundly. Becoming alarmed at 8.30 by the heavy breathing, his brother attempted to wake him, but failed, and in his attempts discovered a two-ounce vial containing half an ounce of laudanum.

Dr. D. W. Hand, Dr. C. H. Boardman, and ourselves were summoned, and arrived at about 9. At this time shaking, slapping, pricking, etc. were in no way heeded. His muscles

were perfectly relaxed, his face livid, pupils contracted, extremities blue and cool, respiration slow and noisy, pulse full and slow.

The stomach-pump was immediately used and the stomach thoroughly washed out. It was evident, from the character of contents obtained, that most of the laudanum had been absorbed.

One-forty-eighth of a grain of atropia was administered hypodermically at 9.45, and one-twenty-fifth of a grain at 10.15. By this time the respirations had become very infrequent (four to a minute), irregular, and shallow. The poles of a magneto-electric battery were applied over the phrenic nerve in the neck and around the base of the chest. The respirations were quickened and improved for five or ten minutes, and then lapsed into their former state. A noticeable point was that, when the face became very livid and the lips very blue, one deep inspiration, followed by three or four progressively more shallow ones, would occur, brightening the color, after which almost a minute would elapse with no attempt at respiration. During this time the face again became livid, and then the same process would be repeated. About 10.20 all attempts at natural respiration—which up to this time had been maintained by the stimulus of the battery—almost entirely ceased, and the pulse failed in strength. Artificial respiration was resorted to, and under its influence the color of the surface and the character of the pulse soon improved. At 11 a Hall's battery was tried, which caused respiration unaided by artificial methods for five minutes; at the end of which time it failed entirely, and artificial respiration was resumed and steadily continued until 1.30 A.M. The pulse remained from 9 o'clock to 11 o'clock quite full and strong so long as the respiration was efficiently continued, but became irregular, weak, and fluttering as soon as it was remitted even for a minute. About 1.30, however, the artificial respiration proved less effective, and a much greater effort was required to force the air from the lungs, and a greater length of time for them to fill. The pulse ran up to 120, became intermittent, and then almost imperceptible. A brisk current from the magneto-electric battery was reapplied, with the effect of at first making artificial respiration more easy, and then establishing natural respiration, which at 2 o'clock continued unaided by the battery, at ten to twelve respirations per minute. Flagellations were kept up constantly until 4 o'clock, when the patient could be made to walk a step or two, but would immediately afterwards drop down fast asleep. At 6 o'clock he was delirious, but could be roused to answer questions.

For the two succeeding days he had very considerable congestion of the lower lobes of both lungs, and later a severe bronchitis with a pleurisy of the right side.

To recapitulate, the points of interest in this case are—1. That one and a half fluidounces of laudanum were taken, the most of which was absorbed. 2. The hypodermic injection of one-sixteenth of a grain of atropia dilated the pupils widely, but had no effect whatever on the pulse, respiration, or color of the skin. 3. The magneto-electric and faradaic currents were each found more useful for being intermitted and alternated. Benefit was also noted from occasionally shifting one pole from over the position of the phrenic nerve to the spinal column. 4. By far the most important remedial measure used was ARTIFICIAL RESPIRATION. During three hours it was continuously persevered in, with the constant hope that natural respiration would come to our relief. Twice in this time an attempt at such respiration became apparent. This, favored by the use of the batteries, continued each time about five minutes, when it ceased, and the pulse became small and fluttering. For these three hours of vital importance, death was kept from assuming his dominion only by rhythmical breathing performed mechanically for the patient, not by him. At the close of the third hour, the vital forces—the heart's action especially—were failing, in spite of the artificial respiration, and it seemed almost certain that this means could preserve life but little longer. Magneto-electricity, with unexpected efficacy, now furnished the stimulus needed to strengthen the heart and

elicit those first evidences of return to life so grateful to his almost hopeless attendants. The method of respiration used was Sylvester's, with an occasional change to that recommended by Dr. Benjamin Howard.* Both methods were efficient; the change from one to the other was beneficial, because in this way the operator obtained a little rest, and because deeper respirations could be forced on making the change after the chest had become accustomed to one method.

In conclusion, we might mention another case of opium-narcotism in a young woman which was nearly as profound as this, and in which we had the satisfaction of seeing signs of life return after a steady perseverance in artificial respiration for an hour and a half. Five grains of morphia had been taken and retained three hours before she was seen. When we first saw her, there was only an occasional respiration, which soon entirely ceased. The stomach-pump could not be used, for we did not dare to intermit the artificial respiration long enough for it. No atropia and no electricity were used.

TWO OBSTETRICAL CASES.

BY DR. CEPHAS L. BARD,
San Buenaventura, California.

CASE I.—Was called January 30, 1872, to see Mrs. R. P. D., aged 32, a strong, muscular Englishwoman, the mother of two children, and who had been in labor for some hours. Found an excess of liquor amnii, which being removed, she was easily delivered of a living healthy male child, weighing ten pounds. The secundines, not passing away, were removed an hour later; and as the womb did not contract well, although there was no flooding, I made a further examination, and removed a mass which proved to be a blighted embryo or fetus of three months' age, with a separate and distinct placenta. It was well formed, but much flattened by the pressure of the living child. Neither it nor its placenta presented signs of putrefaction.

Without citing any of the many theories in regard to second impregnation, superfœtation, etc., I will simply state that in my opinion, based upon the history of the case, the woman originally conceived twins, and that one lost its life early in gestation from an entire or partial separation of its placenta, owing to undue physical exertion on the part of the mother. The woman is remarkably robust and muscular, and whilst *enccinte* was accustomed to assist her husband in his work about the farm. She mentioned that, when about three or four months advanced in pregnancy, she "strained" herself whilst lifting barrels of water from a wagon and placing them on the ground.

Case II.—Was called, March 9, 1872, to the bedside of Doña Clemencia Hilbur, aged 30, the mother of one child, who had been in labor for four days prior to my visit.† The patient was completely worn out by her protracted labor, and there was a dribbling of a dark, viscid, and putrid liquor amnii. Examination revealed a "cross-birth," the back and shoulders presenting, and, strange to say, both arms lying in the vagina. The nature of the case was stated to the mother, and all efforts to assist her were delayed till after her confession and the application of "agua bendita" to the projecting hands of the infant and it baptized with the name of Juan, or Juana, as the sex might be. After considerable labor, I succeeded in drawing down both feet, and traction being made to tape attached to them by one hand, whilst the other

pushed up the shoulder and arms, the child, apparently dead for several days, was easily extracted. No untoward symptoms presented themselves, and the mother is now doing well.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

CLINIC OF PROF. JOS. PANCOAST.

Reported by FRANK WOODBURY.

INTRACAPSULAR FRACTURE OF THE FEMUR.—OBSCURE INJURY IN THE HIP-JOINT.

THIS patient, Captain R. Y., 38 years of age, came into the clinic-room on crutches, with the characteristic one-sided elevation of the pelvis and flexure of the thigh upon the body peculiar to hip-joint affections. He stated that he had never suffered from previous disease in the joint, but was injured accidentally. He was captain of a vessel, and, during a severe storm at sea, was thrown violently across the deck, striking against the bulwarks, and seriously injured, being stunned with the shock. He was unable to use his right leg afterwards, and, thinking that he had sprained his hip, he remained for some time in his berth, giving the limb perfect rest and applying stimulating lotions. Although this accident occurred five months before, he had not regained the use of the limb, and was unable to bear his weight upon it.

As the joint was very painful on motion, Prof. Pancoast directed ether to be administered before proceeding to make the physical examination. The parts about the trochanter were slightly swollen; the limb was strongly everted, and on measurement gave a shortening of three-quarters of an inch. Considerable mobility existed about the joint. By extension, with the application of considerable force, the shortening, even at that length of time after the accident, in great measure disappeared, but immediately returned on discontinuing the counter-extension. Crepitation was obtained close up to the acetabulum.

The affection was pronounced intracapsular fracture of the neck of the femur, with the capsule pushed up on the side of the ilium, by the outer end of the broken neck. This fracture might be mistaken for a dislocation of the thigh-bone on the pubes, or into the thyroid foramen, if we looked merely to the great eversion; or on the ilium, on account of the shortening; but the lecturer showed that, by attention to all the features of the case, no mistake need occur. "In fracture with displacement the shortening may be reduced, but is immediately restored on discontinuing the traction; but if the head of the bone is out of its socket, the shortening cannot be made to disappear without reducing the dislocation. In fracture without displacement (impacted fracture), the limb will be weak and painful on movement; there will at first be no very obvious shortening, and usually but slight eversion. But the shortening will quickly follow, if the interlocking spiculæ be rudely broken in attempts at diagnosis; or after they have been softened by inflammation so as to let the fragments separate. In this form of impacted or interlocked fracture without shortening, I have known patients to limp around their bed for nearly a week, disbelieving the surgeon's diagnosis, before the complete separation and shortening took place. In fractures of this kind, treated at once on the principle of the double-inclined plane in the Charleston therapeutic chair (now quite common in this city), so that the fractured surfaces are kept perfectly at rest, I believe I have several times succeeded in obtaining a firm union. Although the limb will be strong and good after such a fracture has united, yet there will necessarily be some shortening and a little eversion."

The lecturer continued, "The strips of the fibro-serous membrane covering the neck, which I have seen bridging the fracture in cases that proved quickly fatal in consequence of other injuries, and which, I think, would be important agents in bringing about firm union, ought to be properly cared for. It is for fear of rupturing these bands, that I dislike so much to see the rough movements that so many surgeons make in order to establish their diagnosis; a prudent surgeon would be cautious in this respect.

* For a full description of which, see *Philadelphia Medical Times*, vol. ii. page 154.

† To the readers of the *Times* unacquainted with the *modus operandi* pursued by the native Californians or Mexicans in cases of confinement, I would say that a broad band, or "faja," fastened to the ceiling of the adobe, is brought down to the bed, and, after encircling the woman's abdomen several times, is passed to the hands of the midwife, or "partera," who, by forcible traction and kneading the abdomen, endeavors to assist the mother in the expulsion of the child.

"It is too late, in the case before us, to think of attempting to obtain bony union, which in this situation is always difficult, and often impracticable. The best result we can hope to obtain is such a false joint as the parts are able to make for themselves, either by the joining of the ends of the broken neck by fibro-ligamentous tissue, as sometimes happens, or, which I think more often occurs, by the flattening of the outer lip of the acetabulum, with elevation of the capsule, and the formation of a sort of head on the bone, by rounding the end of the outer fragment. To get this result without more shortening than is unavoidable, we will order him to wear an apparatus designed to give the joint as much rest as possible, without confining him in bed." The apparatus (made by Mr. Gemrig, 109 S. Eighth Street) was shown to the class. In its construction, it consisted of two flat steel rods extending along the internal and external aspects of the limb, which were connected at intervals by straps around the continuity of the lower part of the leg, giving firm support. The rod on the inside came only to the knee-joint, but the outer one passed up above the pelvis, and was attached to a broad leather belt buckled tightly around the body. A counter-extending strap, well padded, was carried from the top of the outer splint, under the perineum, and firmly fastened. Both splints were attached to the sole of the shoe; and a slide for extension, worked with ratchet and pinion, was attached to the outer one. By means of a hinge at the knee and at the ankle, moderate motion in the plane of the body was allowed to those joints; but the hip was kept extended. In this manner, moderate but permanent extension and counter-extension were maintained, and the fractured parts were kept as much as possible at rest.

In alluding to injuries of the hip, which are always obscure in their nature, the Professor remarked that, if he was not greatly mistaken, he had met with two cases of a peculiar injury at the hip-joint which had heretofore escaped the notice of surgeons, and which he would call "dislocation of the mass of fat, or Haversian gland, at the bottom of the acetabulum. This mass of fat is covered by the synovial membrane common to it and the round ligament. The ligamentum teres, as it branches to get its two attachments near the opposite ends of the notch of the acetabulum, is so clearly associated by reflexion of the synovial membrane with the Haversian mass, that we can, in a specimen previously macerated in dilute alcohol or water, readily make it force the fat from its bed, by pushing the thigh-bone into violent abduction.

"One of these cases I detailed to you when lecturing on the joint; the other is of recent occurrence. The first of these cases was that of a gentleman, who, reaching over from the curbstone to swing a heavy child suddenly from under the feet of running horses, bent his body in the effort so as to produce the effect of violent abduction at the hip-joint. The other case was that of a lady. While descending from a loft, she tripped, and, as she fell, one limb, up to the hip, became entangled between the rounds of the ladder, so that the body in falling produced a sudden and forcible abduction of the limb at the hip-joint. In both cases violent pain in the hip-joint quickly followed, increasing to such an extent that not the slightest motion of the limb, or even any agitation of the bed, could be borne. There was in neither case any shortening or lengthening, eversion or inversion. In the former case, after fruitlessly trying for several days to afford relief by antiphlogistics and anodynes, it occurred to me on examining a preparation of the hip-joint that the fat might be dislocated from its bed. With this view, I made a sudden and strong extension of the limb, combined with rotation at the hip. Sudden, almost instantaneous relief followed, and the patient was able to walk about and bear his weight on the limb the next day, with but little pain.

"In the case of the lady, after a very careful measurement and examination of the limb I was better prepared than before to anticipate the nature of the injury. Placing her under the influence of ether the second day after the accident, the leg was bent upon the thigh, the thigh flexed on the pelvis, the knee carried to the opposite side of the abdomen and then swung over the hip of the same side, just as in the manual process for reducing dislocation of the hip. Something was felt to slip, with a dull sound audible to the bystanders. In this case the relief was not so immediate and complete as in the preceding one, although much alleviation of pain was

experienced at once, and the limb could be rotated a little without much suffering. By the second day after the operation, the limb could be rotated quite freely without pain. Several weeks elapsed, however, before the patient could bear her weight upon it. This may have been partly due to a deep cut received at the same time, in the gluteal region, by striking against the edge of a stove-plate, and partly to an injury of the lumbar portion of the spine, which required free and repeated cupping for its relief.

"Cases like these must occasionally have been encountered by other surgeons; possibly they have been set down to sprain. Supposing that I have been correct in the diagnosis in these cases, it becomes a question as to what would be the probable result if they were left to themselves. It is possible that, by some subsequent movement of the limb, the fat might be forced or allowed to slide back into its bed; or it might become inflamed, and lead ultimately to some one of the chronic forms of disease which are so common about the hip-joint. In this articulation, in which the head and neck of the os femoris are so tightly embraced by the firm capsule, there is but one yielding point which could possibly accommodate a portion of the mass of fat supposed to be dislodged. This would be the notch in the acetabulum subtended by the transverse ligament, under which the two divisions of the ligamentum teres run to their insertions, covered with reflected processes of the synovial membrane which lines the free surface of the fat."

SUBCUTANEOUS INJECTION OF ERGOTIN IN VARIX.—Having observed the records (*The British Medical Journal*, April 27, 1872; from the *Berliner Klin. Wochens.*, March 4, 1872) of good results following the subcutaneous injection of ergotin in cases of aneurism in the hands of Von Langenbeck, Schneider, and Dutoit, Dr. Paul Vogt, of Greifswald, was led to try the remedy in varix of the lower limb. The first patient on whom the experiment was made was a man aged sixty, who had suffered for several years from extensive varices of the leg. A solution of 2 grammes of ergotin was made in 7.5 grammes each of spirit of wine and glycerine, and a quantity containing 12 centigrammes of ergotin was injected at the proximal end of a varix more than two inches long, and as thick as a little finger, lying over the tibia. The injection was repeated every second day. In eight days the varix could not be seen, and in six weeks no trace was left. During the treatment the patient went about as usual. Another varix, of the size of a hazel-nut, lying on the outer side of the calf, was treated in a similar manner, with the same result. At the point where the injection was made there was some circumscribed infiltration, which gradually disappeared. Several other patients in the Greifswald Hospital, some of them with very large varices, have been treated with the subcutaneous injection of ergotin, with a surprisingly good result. Dr. Vogt believes that the ergotin causes contraction of the muscular coat of the arteries, so that the flow of blood into the dilated vessels is hindered; that it also produces contraction in the veins; and that the local infiltration following the injection may have some effect by the compression which it exercises.

LARYNGOTOMY.—Mr. John Wood, in the course of clinical lectures on this subject (*Lancet*, March 9, 1872), says that under a sense of impending suffocation patients usually throw the head backwards; and this movement stretches the skin of the neck and tends to close the vertical incision which is usually made in the skin over the crico-thyroid membrane, and thus to interfere with free inspiration through the wound. But this frequent movement tends, on the contrary, to open a transverse cut in the tissues. He therefore prefers, with a sharp, small-bladed knife, to make a single transverse incision across the lower part of the hollow depression felt by the finger, just above the cricoid ring, through the skin and membrane at once, right into the windpipe, and to extend it sufficiently laterally to introduce a tube. Such a wound will remain open even without a tube; sometimes, indeed, the patient will breathe more easily without one. If a tube be used, it should be broader in the transverse than in the vertical diameter, and shorter in the length between the shield and the curve than the one adapted for tracheotomy.

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EDITORIAL.

**THE ADDRESS OF THE PRESIDENT OF
 THE AMERICAN MEDICAL ASSOCIATION.**

WE have already presented our readers with an abstract of the address made by Dr. Yandell, the late President, before the American Medical Association, at its late meeting in this city. His remarks were in the main happy, and the address has generally been commended by those who heard it.

A large part of it was, like the addresses of former presidents, devoted to the consideration of the subject of medical education in the United States. Unlike his predecessors, however, Dr. Yandell seems to regard its present condition with satisfaction, and to think that the opportunities afforded to the American student for becoming familiar with the art and science of medicine are sufficiently numerous. He deprecates, apparently, any attempt to make our schools conform to a European, and especially to a German, model. Unquestionably, there may be on the part of some of our countrymen a disposition to depreciate whatever is American, simply because it is so, and it is quite possible that some of the former presidents of the Association have laid themselves open to this reproach. They may also have overlooked the fact that, in spite of the disadvantages of our system of medical education, we have physicians among us, graduates of our own schools, whose reputation is world-wide, and that a very fair proportion of medical students become in later life successful and intelligent practitioners. But it is possible to err in an opposite direction, and this part of the address will, we are sure, be regarded by many as an attempt to flatter national vanity. There are grave defects in our system of medical education; and we are sorry that the President of the American Medical Association should endeavor to underrate them, especially at a time when there is a reasonable hope that the courses of instruction at our colleges are about to undergo a marked improvement, and the efforts of the Association have hitherto been directed towards bringing this about. Why, if America affords advantages equal or similar to those of Europe, should physicians who desire to perfect themselves in all departments, or in a particular branch of medicine, find it necessary to go abroad?

In remodelling our medical schools, it is, moreover,

not necessary that they should be made the exact counterparts of those of any other country. There are, as Dr. Yandell says, many branches of science, taught in German universities, the knowledge of which does not seem to be essential to the possession of a good medical education; and these, although they may have more influence in training the mind than he perhaps suspects, may be omitted from the curriculum. It is not true, as might be inferred from the address, that clinical medicine, either in France or Germany, occupies a subordinate position to other departments of medical instruction, as it certainly does, with very few exceptions, in the schools of this country. Clinical teaching will, moreover, never hold its proper position in the estimation of students until the ability to make a diagnosis is made a prerequisite to graduation, and until professorships of clinical medicine in all its departments exist generally in our medical schools.

Dr. Yandell, while admitting the superiority of the Germans over ourselves in histology, in pathological anatomy, in organic chemistry, in microscopy, in surgery, and in midwifery, says:

"The practice of physic in Germany,—is it not little more than a meditation on death? Have not placebos taken the place of remedies in their hospitals? Standing idly by while disease is running its course, curiously marking its natural history,—looking on calmly while death and life-in-death, as described in the Ancient Mariner, are throwing the dice, and waiting to see whether Nature will lose or win in the struggle,—the physician seems intent mainly on tracing its ravages in the cadaver, too well satisfied to find his diagnosis confirmed by the autopsy. These vast stores of science, treasured up by the German mind through these centuries, in what have they resulted? As to therapeutics, in something hardly better than nihilism; as to physiology, in a materialism which not only abolishes religion, but renders any religious belief impossible. To this ghastly complexion, it may be, American medicine must come at last; but I am sure no philanthropist can be impatient to see the day."

A few inaccuracies may possibly have crept into the newspaper report of Dr. Yandell's address from which we make the above extract, but, if our memory serves us, the passage quoted is in the main given as it was spoken.

We appeal to any of our readers who have been recently abroad, or who are familiar with German medical literature, to say whether or not Dr. Yandell has correctly represented the condition of medicine in Germany. Is it true, then, that the practice of medicine there is little more than a meditation on death, or that nihilism represents the present condition of German therapeutics? He apparently forgets that a knowledge of the very branches in which he admits the superiority of the Germans is essential to the correct diagnosis, and, consequently, to the proper treatment, of disease; but, apart from this, we have only to refer him to the works recently issued by Niemeyer and by Oppolzer—and the influence which these men exercised during their life will hardly be denied—to convince him that there are physicians in Germany, holding prominent positions,

who attach a very positive value to drugs and other remedies. Skeptics are undoubtedly numerous among physicians there, but it should be recollected that there are many of the same class here. Moreover, he is not to be looked upon as a skeptic who, with a better knowledge of the pathology of disease and of the action of drugs, is sometimes content to let Nature take her own course, interposing only when some positive indication for treatment is presented; nor can this course, inasmuch as a fair share of success attends it, be justly stigmatized as a "meditation on death." We may remind Dr. Yandell also that much that is known concerning the therapeutic uses of electricity, now so constantly employed in the treatment of nervous disease, is derived from the Germans.

We are disposed to attach more importance than does Dr. Yandell to the preliminary education of the physician. There have been great men who have spelled badly and written inelegantly, and there have been good physicians who have done the same, but in all such cases greatness has been attained in spite of these defects in education,—not, as we are almost tempted to say, because of them. We are of opinion that it would be better if the rule which requires that the matriculant in medicine should have a college education, or its equivalent, were strictly enforced. Undoubtedly the facility with which, in this country, any one who is disposed to do so may matriculate, attend lectures, and graduate in medicine has done much to increase the number of quacks to whose pretensions the possession of a diploma gives a certain amount of color; and many a charlatan, with scarcely enough knowledge of the construction of the English language to write his own advertisements, may, even at the present day, call a respectable school of medicine his Alma Mater.

A CORRESPONDENT calls our attention to the importance of the resolutions recently adopted by the College of Physicians of Philadelphia, and subsequently by the American Medical Association. These resolutions provide that all remedies for external use should be put in bottles which are not only colored, but roughened on one side, and that in every case where a poison is sold, the bottle containing it should not only be labelled "Poison," but also have another label indicating the most efficient and convenient antidote. A case has recently occurred in his own practice which shows the necessity of the latter precaution. A woman intent upon self-destruction swallowed an ounce of bedbug-poison, containing a drachm of corrosive sublimate in solution. As the act was a voluntary one, no form of bottle could have prevented it; but, as the woman immediately afterwards confessed what she had done, her life might have been saved by the timely application of the appropriate remedies, if these had been known to her friends.

The frequency of the accidental administration of external remedies demands that every possible safeguard should be employed, and these two are of paramount importance.

CORRESPONDENCE.

THE SWALLOWING OF INSOLUBLE BODIES BY CHILDREN.

IN the *Philadelphia Medical Times* of April 15, Dr. Packard records two cases in which insoluble bodies were swallowed by children. I have recently had under my care two similar cases, differing from those reported by Dr. Packard only in the length of time the foreign bodies were retained. In one case a safety diaper-pin was passed—maliciously, there was reason to believe—into the œsophagus of a child, where it remained until, suffocation being imminent, it was pushed down into the stomach by the child's mother, who had previously attempted in vain to remove it through the mouth. The diaper-pin, which was of silver, gave rise to no irritation whatever during the whole time it remained in the digestive tract, the bowels continuing to perform their functions regularly. It was voided five months and three days after the date of the accident. In the other case, a child, whom I was treating for worms, passed a two-cent piece, which it had swallowed three weeks and three days before. In neither case was any special treatment instituted.

M. O'HARA, M.D., 31 S. 16th St.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES.

I REGRET to see, in your report of the discussions at the late meeting of the American Medical Association in Philadelphia, that the assertions of Dr. Palmer, of Washington, D.C., one of the rejected delegates, in regard to his having been *not* allowed to register as a permanent member,—his having been informed "late in the afternoon of the second day" that "charges had been preferred against him,"—and that he had been "denied the right to defend himself," are not followed by the denial with which I met them at the time, for the sole purpose of placing the committee of arrangements "right upon the record." My impression was, and still is, that I gave his statements the most decided contradiction, accompanying this with the remark that they were not worth taking up the time of the meeting with any further notice.

In regard to his complaints, I have to say,—1st. That he was distinctly told *before the first meeting* that his credentials as a delegate were objected to, and would have to be referred to the Association. 2d. That he was as distinctly told *before the second meeting* that he had a right, and ought, to register as a permanent member,—which he did. 3d. That he had ample time and opportunity to defend himself, before the Association as well as before the Committee on Ethics. The only "charges" we were or are aware of as preferred, at any time, were stated in the report of that committee, and again before the meeting. His position on the platform in the exercise of the very right the loss of which he pretended to lament was ample contradiction to that part of his complaint. It did not show, however, when or how he had got in for the purpose of appeal. The answer to this is that he was urged to register before the second day, and as soon as the proper officer was made aware of his position. Everything, in short, was done to obtain and secure to him and his associates the footing and the hearing to which, in justice to all parties and under the law as understood by the committee, they seemed to be entitled. Very respectfully,

MAY 25, 1872.

EDWARD HARTSHORNE.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Dr. J. G. STETLER, VICE-PRESIDENT, in the chair.

At a conversational meeting held April 10, 1872, at 8 o'clock, P.M.,

Dr. BENJAMIN LEE offered the following remarks on a case of spinal caries which he presented for the inspection of the members present:

"I have brought this little lad here to-night, as a fair specimen of the results that are attainable in spinal caries by careful mechanical treatment, when the case is recognized and taken in hand in its earlier stages. I first saw him in September, 1869, in Wilmington, Delaware, in consultation with Dr. W. R. Bullock. He was then 10 years of age. His parents were both living, and I could obtain no history of strumous antecedents in the case. His own health had been tolerably good, with the exception of one or two acute inflammatory attacks. About a month before I saw him, he had, in attempting to sit down upon a trunk, missed his seat and fallen heavily, striking his back against its sharp studded edge. For the next few days he had occasional attacks of pain between the shoulders, and at the end of two weeks, after a little unusual exertion while at play out-of-doors, found himself almost unable to walk, reaching his home with difficulty. When I saw him, two weeks later, he was unable to stand erect, and supported himself by resting his hand on his knee, and in this position could walk across the room with difficulty. His sleep was much disturbed; he had lost flesh, was very pale, and had little appetite.

"There was considerable projection in the mid-dorsal region, and above that point the spine bent forward very considerably. When I applied the splint, a week later, all his symptoms had become decidedly aggravated. The benefit of absolute support was immediately apparent. In a week he could stand quite erect and walk short distances with ease, and in a month was able to walk a half-mile without serious fatigue. About this time, an abscess made its appearance two inches below and to the right of the projection on the spine. This increased to the size of a hen's-egg, when it was evacuated by a free incision, and, after discharging for a few weeks, healed kindly. Four months after the application of the instrument he was seized with typhoid fever, which, although not of a severe grade, seriously diminished his vital and recuperative forces, confining him to the house for about a month. As soon as he was able to get out-of-doors again he began to improve, and in a month had entirely recovered. The instrument was worn during his sickness, with little omission. I now furnished him a spinal swing for the purpose of directly extending the spine, and of overcoming and preventing distortion of the thorax, and developing the spinal and other truncal muscles: the use of which, for half an hour daily, evidently hastened his improvement. The following summer he removed to Niagara Falls; and I was greatly apprehensive that he would, through neglect, lose all that he had gained, as there were still evidences of inflammatory, if not ulcerative, action. The use of the instrument was still continued, under the careful supervision of a surgical friend in Buffalo, and when he came to see me six months later I considered him entirely cured. The instrument was directed to be worn at least a portion of each day, as a matter of precaution.

"You will notice a decided prominence remaining on the spine, which, of course,—anchylosis having taken place,—will always be observable, although now considerably smaller than when treatment was commenced. But there is no suspicion of deformity when he is clothed, and the perfect freedom and ease of his movements suffice to prove that there is now no trace of diseased action in the vertebrae.

"The splint, you will notice, differs entirely from the braces of the shops in having no lateral crutches for the purpose of making extension. It makes use of the articulating processes of the vertebrae as a fulcrum on which to elevate their bodies, to which the disease is almost invariably confined. Its action

is therefore entirely in the antero-posterior direction, tending to unbend the curve. The principle of extension can be efficiently and safely applied in spinal affections only from a fixed point outside the person.

"Another peculiarity of this instrument is, that it has two hinges, allowing of motion posteriorly but not anteriorly, and governed by set-screws. This arrangement allows free play to the spinal muscles, and at the same time affords a means of ready and delicate adjustment without removing the instrument from the person,—both of which are matters of considerable moment."

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY, APRIL 11, 1872.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

Dr. JOSEPH G. RICHARDSON exhibited, for Dr. H. C. WOOD, a specimen of *cancer of the stomach*. He had no knowledge of the case before death, having simply made the post-mortem examination.

The specimen was referred to the Committee on Morbid Growths, who, at a subsequent meeting, reported that the specimen was one of "fibrous cancer (scirrhous)."

Dr. DE FORREST WILLARD presented, for Dr. TURNBULL, the specimens from a case of *chronic catarrh of the small intestine, with extraordinary induration and thickening of its walls, forming an abdominal tumor; intussusception at three places*.

Dr. W. said the history was incomplete. The patient was a man 23 years of age, who had been in good health until about three years before death, when he had an attack of what was termed "inflammation of the stomach." From this he never fully recovered, although able to perform light duties as a railway news-vendor until within six months previous to his death, when he was compelled to seek hospital-care in Chicago, and was there informed that he had a "tumor of the kidney." A few months later he entered the Pennsylvania Hospital, where he remained until within seven weeks of the time of his death. His symptoms were continuous severe pain in the left abdominal region, constant diarrhoea, progressive emaciation, cough, expectoration, dulness at the left apex, rigors, etc. In the left iliac region was a large uneven nodulated tumor, which was diagnosed as enlarged mesenteric glands. Death took place from exhaustion.

The patient was first seen by Dr. Willard at the autopsy, made thirty hours after death. Emaciation was marked. The skin was a pure clear white; the hands and feet were cedematous. The abdomen was flat, and there was no ocular evidence of fulness. Upon palpation, however, a mass could be distinguished occupying the left iliac, lumbar, and umbilical regions. There were about eight ounces of serum in the peritoneal cavity, with flakes of fresh lymph floating through it, and attached at many points to both its parietal and visceral layers. The *small intestine*, from the middle third of the jejunum to the lower portion of the ileum, was thickened to the extent of a quarter of an inch, and was dense, firm, and resisting. The mucous membrane was ulcerated, and at points discolored. At three separate points were distinct and perfect invaginations of the bowel to the extent of an inch; they were old, and firmly held in their false positions by strong bands. The canal, however, was pervious to a certain extent, but the entire intestine below this point was markedly diminished in size,—the colon, sigmoid flexure, and rectum being no more than one-third their normal size, yet otherwise healthy in their general appearances. Between the two invaginations was a distinct perforation from ulceration, two or three lines in diameter, through which faeces could be easily pressed.

One or two of the mesenteric glands were enlarged to the size of walnuts, while the mesentery itself was thickened to the extent of an inch.

The mass of the supposed tumor was made up of the folds of thickened intestine.

The stomach, pylorus, pancreas, spleen, and kidneys were all of normal size and appearance.

The liver was healthy.

The lungs, heart, and brain were not examined.

The specimens were referred to the Committee on Morbid Growths, who at a subsequent meeting reported:

"The specimen of intussusception presented by Dr. Willard shows, in addition to that lesion, a very marked thickening of all its coats. It is brawny in consistence, and at least three or four times as thick as usual. Sections of it placed under the microscope show only a hyperplasia of its normal anatomical elements, and your committee believe that its unusual dimensions are the result of a chronic catarrhal inflammation."

Dr. JOHN ASHHURST, JR., presented, for Dr. J. N. BURTNETT, a specimen of *cancer of the pyloric end of the stomach*, and read the following history furnished by Dr. Burtnett:

C. M., æt. 30; periodically intemperate; had three "discharge papers" from the U.S. service for "general debility."

Eight months ago, after a spree, he had an attack of what then appeared to be acute gastritis,—the most constant symptom being almost incessant vomiting, which, after a few weeks' rest with treatment, subsided. The attacks returned at short intervals, accompanied with pain over the stomach, vomiting after eating, and great prostration. He frequently complained of a painful floating lump in the left hypochondrium, which was never present at the doctor's visit. The bowels were usually constipated, but yielded easily to cathartics. He became much worse in November last, and has since then been confined to bed, always vomiting within an hour after eating or drinking. He emaciated rapidly, and died March 29. The pain was at no time severe, but was of a dull heavy character, such as is usual in chronic disorders of the stomach.

Post mortem examination revealed the heart, lungs, and liver normal; the stomach large, holding three quarts. There were no evidences of congestion or inflammation; on the contrary, it was unusually white. The pyloric end was filled with a number of colloid tumors, each an inch in diameter. One of the growths had supplicated, and the pus had perforated the stomach and a small quantity escaped into the abdominal cavity. The transverse colon was adherent to its surroundings by organizations of long standing.

The specimen was referred to the Committee on Morbid Growths, who later reported it to be *medullary cancer*.

Dr. JAMES TYSON presented specimens of *syphilitic gumma of the liver and albuminoid (sago) spleen*, removed from a woman who had long suffered with chronic diarrhoea in the Philadelphia Hospital. The gummata presented their usual opaque, white, hard characters, merging at their periphery into the fibrous texture of the organ, so as to be quite incapable of enucleation.

The albuminoid spleen was a beautiful example of the so-called sago spleen, the degenerations being confined to the Malpighian corpuscles. The iodine reaction was markedly distinct with a solution composed of one part tincture of iodine, one part alcohol, and two parts water,—a proportion which, he had found, furnishes the most satisfactory strength for the test-solution. The blood-vessels of the small and large bowel exhibited the same reaction.

Dr. TYSON also presented, for Dr. WM. PEPPER, a marked example of *stenosis and insufficiency of the mitral valve*. The case had been attended before death by the so-called presystolic or auricular systolic murmur.

Dr. J. E. MEARS exhibited a specimen of *mural fibroid tumor of the uterus*, removed *post mortem*.

Dr. M. remarked that he had examined the patient during life, in consultation with Dr. A. C. Deakyne, of this city. She was 37 years of age, and had been married three months. The growth of the tumor was extremely slow, an enlargement being first observed seventeen years ago. During the development of the tumor she had suffered from numerous attacks of uterine hemorrhage, some of them quite severe. By palpation and percussion over the abdominal surface, a solid tumor, pyriform in shape, could be distinctly outlined occupying the lower central portion of the abdomen, extending above to the umbilicus. A vaginal examination discovered the os uteri behind the symphysis pubis, high up in the pelvis. The sound entered the cavity of the uterus to the extent of four and a half inches, and its point could be readily felt through the abdominal walls. The posterior wall of the uterus was occupied by a fibroid mass, with a small pedunculated growth attached, about the junction of the neck and body of the

organ. The examination was limited to the abdominal and pelvic cavities, and the diagnosis was a mural fibroid tumor of the uterus occupying the posterior wall, which the autopsy proved to be correct. The immediate cause of death was found to be cardiac disease, both the mitral and the aortic valves being implicated. Had the patient lived, Dr. Mears proposed to remove the tumor, and with it the uterus, by the method of enucleation,—the plan recommended and pursued by Dr. W. L. Atlee in cases of this character. He showed, on the specimen, how readily this could be effected, by boldly incising the peritoneal and fibrous tunic of the organ, and enucleating it *en masse* with the handle of the scalpel. By this method the appendages of the uterus are not disturbed, beyond separation of the Fallopian tubes and ovarian and round ligaments at their points of attachment to the superior angles and sides of the organ. The uterus is to be divided at the junction of the neck and the body, if the tumor does not extend below this point. The envelope of the tumor is folded so as to form the pedicle, and is embraced by the clamp and treated outside of the abdominal cavity as in cases of ovarian tumors.

Dr. JOHN ASHHURST, JR., asked Dr. Mears whether he had had any experience in the "enucleation" of ovarian tumors.

Dr. MEARS replied that he had not. He thought it a difficult operation, particularly in certain cases. In cases of adhesion of the intestines, in which Dr. Atlee usually dissects off the peritoneum, there is frequently great trouble from hemorrhage. In one such case the fatal result was due to the fact that, the pedicle being broad and short, a small portion left in the abdominal cavity supplicated. Had the operation of enucleation been performed in the case from which the specimen was exhibited, the surfaces of the peritoneum would have been so apposed as to cause discharges to pass out by the vagina.

REVIEWS AND BOOK NOTICES.

LARYNGOLOGISCHE BEITRÄGE. Bericht über die Abtheilung für Kehlkopfkrankheiten im St. Rochus Spital zu Pest. Von Dr. Emerich Navrátil, Dozent an der Königl. Ungar. Universität, etc. 8vo. Leipzig, 1871.

(LARYNGOLOGICAL CONTRIBUTIONS. Report of the Division for Throat Diseases in St. Rochus Hospital of Pesth. By Dr. Emerich Navrátil.)

Czermak, by whose genius and perseverance the laryngoscope was first brought to perfection, was a native of Pesth, and it was there that he achieved his famous triumphs in illuminating the laryngeal cavity. It seems eminently appropriate that the Hungarian authorities should thus attest their appreciation of these valuable discoveries, by setting aside wards in their principal hospital for the exclusive accommodation of throat patients, and thus fostering the specialty so auspiciously inaugurated.

The book before us is a summary of the work done during a period of a little over two years. Nearly a thousand in-door and out-door patients were treated. Although this production does not claim to be much more than a mere summary of these cases, yet its attractive garb of illustrations and admirable chromo-lithographic plates, and the evident fairness of its statements, at once free the book from the opprobrium of mere dry statistics, and are bound to secure for it a high rank among laryngoscopic authorities.

A series of interesting tables is given, showing the different ages, occupations, nationalities, and the average number of the various affections. From the latter we ascertain that the greatest number furnished by any one disease is that of tubercular ulceration of the processus vocalis; next comes that of acute laryngeal catarrh; then that of chondritis vocalis. Laryngeal catarrh, in nearly one-half of the cases, was not confined to the larynx, but extended to the contiguous parts; when limited to the mucous membrane between the arytenoids,—meso-arytenoiditis,—it is generally associated with some constitutional affection (syphilitic, tubercular, or scrofulous); on the other hand, catarrh of the vocal cords—chondritis vocalis—in most cases denotes but a purely local evil.

The treatment adopted in simple laryngitis consists in the application of astringents, such as alum, tannin, and sulphate of zinc, either in the powdered form by insufflation, or in solution by means of the atomizer. The former method is particularly recommended in the simple and strictly localized forms; morphia can in such cases often be advantageously combined with the astringents. In abundant tracheal or bronchial secretion a solution of sulphate of zinc proved most satisfactory.

Of two hundred and forty-six cases of laryngeal ulcers, but nine proved to be a purely local evil, so that by far the greater number of ulcers met with are almost certain to be seated upon a constitutionally affected basis. It is often difficult to determine the nature of an ulcer by means of the laryngoscopic examinations alone; this may be rendered impossible by the greatly infiltrated edges, by the complicating oedema of the neighboring parts, and the lack of determinate marks for the character of the ulcer. But generally "the syphilitic ulcer is usually distinguished from the tubercular by the absence of oedema, by the narrow margins of the ulcer, and by the brighter color, which may be regarded as characteristic in contrast to the pale-red or anæmic appearance of the latter class of ulcers." The typical tubercular ulcer is described as "having an irregular form with notched and undermined edges, the parenchyma of the mucous membrane blanched, with either a smooth or a granulating base." Navratil claims to have seen the actual tubercle associated with laryngeal ulcers. For these the term "ulcera tuberculosa" is proposed, in contradistinction to those resulting from mere follicular diseases, so often found associated with cheesy pneumonia; such are termed "ulcera caseosa." No diagnostic features, however, are mentioned with which such a fine distinction might be made during life. Necrosis of the processus vocalis and ankylosis of the crico-arytenoid articulation are mentioned as not very unfrequent results of the laryngeal ulcer.

A plate is furnished representing the "laryngeal dilator," as invented by Navratil for the purpose of rapidly dilating any laryngeal or tracheal stenosis. The instrument is constructed upon the plan of the ordinary laryngeal pincette, excepting that its blades open laterally by means of an ingeniously contrived lever apparatus. It promises fair to prove a valuable acquisition to surgical appliances.

The chapter upon paralysis of the vocal cords contains many new and interesting observations. No benefit, except in the subacute cases of paralysis, was derived from the use of faradization, the effect of which remained the same whether externally or internally applied. More satisfactory results were obtained from the use of the constant electric current.

Among this number of patients there were found twelve cases of new growths within the larynx. Their histories and the details of the different operative procedures are given *in extenso*. Their removal was effected by the use of various instruments, the laryngeal forceps, écraseur, and galvanocautery being the ones most frequently employed.

Laryngo-fissure was performed in two cases of mucous polyps. Although considerable *éclat* is usually attendant upon the successful performance of such a dangerous operation,—now never thought of except as a *dernier ressort*,—yet we are inclined to question whether Navratil will gain much credit in not having contented himself with simple tracheotomy for the relief of the more urgent symptoms, and subsequent removal of the tumors *per vias naturales*.

THE PHYSIOLOGICAL AND THERAPEUTICAL ACTION OF THE BROMIDE OF POTASSIUM AND BROMIDE OF AMMONIUM. By EDWARD H. CLARKE, M.D., and ROBERT AMORY, M.D. In two Parts. 8vo, pp. 178. Boston, James Campbell, 1872.

Not very many years ago, books treating upon the action of drugs, after the manner of Drs. Clarke and Amory, were few in number and, as we read them now, of little value. Modern Medicine requires more of her workers than shrewd guesses. Given a pure drug, the physiologist experiments with it upon man and animals, carefully noting its absorption, its elimination, its action while in the economy, and deduces certain conclusions, which he places in the hands of the therapist, who, not forgetting the changes produced by a pathological condition, is guided by them in the treatment of disease.

Judged by this standard, we pronounce the book before us to be a model. In Part I., Dr. Amory has laid down propositions, tested them by a series of carefully conducted experiments, in which he was aided by the thoughtful and attentive assistance of the medical classes of Harvard University for the years 1868-69, and, finally, has recorded his conclusions. We copy these, as follows:

"I. Bromide of potassium is easily absorbed by the mucous membrane, etc.

"II. This drug is *easily* absorbed by the skin, provided the water in which it is dissolved is below the temperature of 75° F. If the temperature is above 96° F., it is not absorbed.

"III. The elimination is conducted by the skin and kidneys; as the saliva is a secretion, its presence in this fluid is not a proof of its elimination.

"IV. In therapeutical doses, bromide of potassium is not eliminated by the intestines or lungs.

"V. Bromide of potassium passes out of the system without decomposition, etc.

"VI. The effects of the drug are produced by its direct action upon the blood-vessels or the vaso-motor system which controls the contraction of these vessels, which explanation may account for all the physiological or therapeutical conditions brought about by the exhibition of this drug.

"VII. There is probably no different or opposing action in proportion to the dose administered. The larger the dose (not exceeding forty grains), the more intense and the longer the action upon the vaso-motor system.

"VIII. Its action upon the general nervous system is secondary, and dependent upon that of the vaso-motor nerves, etc.

"IX. Bromide of ammonium, in *almost* every respect, has the same action as bromide of potassium. This I infer from the results of more than twenty experiments."

In Part I., Dr. Clarke supplements the investigations of Dr. Amory by an account of the therapeutical uses and value of the bromide of potassium and kindred salts. The record of the former is exceedingly good, but that of the bromide of ammonium is not so complete; and we refer the doctor to the Pennsylvania Hospital Reports, vol. ii., 1869, for a paper entitled "A Contribution to the Therapeutics of Acute Rheumatism, based on a Series of Cases treated with Bromide of Ammonium, by J. M. Da Costa, M.D." A brief account is given of the bromides of lithium and sodium; but Dr. Clarke does not hold that any of the bromides equal in value the bromide of potassium. A field is yet open to the investigator. Still, as these papers were not intended to be exhaustive, we thank Drs. Clarke and Amory for their contribution, and express a hope that the supply of such books may, like Tennyson's brook, "go on forever." One word, too, for the publisher. Were it not for the imprint, we should insist that the volume had crossed the Atlantic instead of coming to us from Boston,—so English are the type and the general appearance.

WORMS. A Series of Lectures on Practical Helminthology, delivered at the Medical College of the Middlesex Hospital. With Cases illustrating the Symptoms, Diagnosis, and Treatment of Internal Parasitic Diseases. By T. Spencer Cobbold, M.D., F.R.S., Honorary Correspondent of the Academy of Natural Sciences of Philadelphia. 12mo, pp. 178. Philadelphia, Lindsay & Blakiston, 1872.

These lectures do not, as the author admits in the preface, cover the whole ground of practical helminthology: they are devoted to the consideration simply of those forms of internal parasitism which ordinarily come under the notice of the physician, and will be found to contain much useful information in a small compass. Several of them have already been published in the *Medical Times and Gazette*, but the greater number are entirely new, and have been only very recently delivered.

As most important to practical physicians, we will give a résumé of the treatment recommended by this distinguished helminthologist for the cure of parasitic disorders, and this we shall endeavor to do as briefly as possible. The remedy which he has prescribed most frequently for tapeworm is the male fern, which he prefers to give in the form of the ethereal extract, the powder having occasionally proved inert in his hands. Other drugs may sometimes be resorted to with

advantage, and these are oil of turpentine, kousso, areca nut, kameela, and chloroform. In cases where there is reason to suspect the existence of the *ascaris lumbricoides*, he has found santonin the best anthelmintic,—a statement which physicians who have had much experience in its use will confirm. The natural saline waters, especially those which possess a slightly bitter taste, are recommended for patients infected with the *oxyuris vermicularis*, or common threadworm, which Dr. Cobbold is disposed to think is more frequently an inhabitant of the cœcum than of the rectum or lower bowel, although the contrary is asserted to be the fact by most writers on parasitic disease. "Though," he says, in deference to the statements of practitioners abroad, "I have often employed santonin, podophyllin, and chenopodium,—the latter both in oil and powder,—I am bound to say that any good results following their use generally appeared to be principally attributable to the aperients employed to increase their action." In the treatment of the so-called endemic hæmaturia from Bilharzia, he advises the employment of such drugs as are known to exert a special soothing action on the mucous membranes, and with this end in view he has frequently prescribed buchu. He thinks it absurd to attempt to destroy the parasite by the administration of parasitocides, which may even do harm by weakening the patient and thus interfering with nature's curative efforts.

CIRCULAR NO. 3—SURGEON-GENERAL'S OFFICE. A Report of Surgical Cases treated in the Army of the United States from 1865 to 1871. Edited by George A. Otis, Assistant-Surgeon U.S.A. Quarto, pp. 296.

This handsome quarto contains accounts of 1037 cases in surgery, of which over 700 cases are reported in detail, and many elaborately. A collection of this kind from men of more than average culture, when edited with the known ability of Dr. Otis, is at once recognized as an important contribution to our medical literature. Designed professedly for the "information and instruction of medical officers," it cannot be ignored by the profession at large.

Perhaps the great bulk of the circular is devoted to the consideration of wounds, both gunshot and arrow. Of the former, 3239 cases are recorded. Concerning the careless handling of dangerous weapons, we have only too frequent evidence in civil life; nor among soldiers, who are supposed to be trained to unusual caution, is the liability to "accidental death" from this cause lessened. One soldier, as seen by the report before us, discharges his musket in a barrack, and kills a sleeping comrade. Another sends the contents of his rifle through the side of the guard-house, mortally wounding a prisoner therein confined. A third hopelessly shatters the femur of a fellow-soldier by the "accidental discharge" of his musket. The Indian, it would appear, is not the only agent that may diminish the life-rate of enlisted men. We wish that the charge of accident would explain all the casualties. "Of fourteen instances of gunshot-wound of the heart," Dr. Otis remarks, "one was inflicted by an Indian, two by sentinels, one accidentally, two suicidally, and the eight other cases were murders." This quiet observation gives us a glimpse of the lawlessness of certain parts of the frontier better than an elaborate comment could have done. We have been struck with the frequent occurrence of such phrases as the following, used in narrating the surgical incident: "wounded at a fandango;" "wounded in a drunken row;" "shot in a street-fight with a policeman," etc.

The facility with which gunshot-wounds may be inflicted in the line of duty, upon enlisted men, by guards and officers, aids in swelling the list of wounded in times of peace beyond a point which, at first sight, would appear probable.

After the above remarks, we may expect to find many wounds received at short range. Such proves to be the case; and much of the professional interest thereunto pertaining is derived from that fact. Dr. Otis informs us that, of the sixteen cases of gunshot-wound of the neck, ten proved fatal,—an exceedingly large proportion. In twenty cases, the carotid, subclavian, external iliac, and femoral arteries were divided. "A musket- or pistol-ball moving with great velocity will cut or divide an artery which, at a greater distance, would only be contused, or, by its resiliency, escape injury altogether."

The chapter on arrow-wounds is perhaps the most novel in the volume. Thirty-seven cases are given, in detail. The

editor, in view of arrow-wounds receiving but little attention at the hands of authors in general surgery, treats us to a learned essay on the subject,—which, together with Assistant-Surgeon Bill's well-known essay (published in the *American Journal of the Medical Sciences*), is so complete that no one desiring to contribute to this department of surgery could well do without consulting it. Dr. Otis—from the evidence of the specimens in the Army Medical Museum—would differ from Dr. Bill as to the effect of a perforating arrow-wound upon the skull. Instead of exhibiting a multiple stellation (splintering and depressing) of the inner plate, "they show both tables of the calvaria punctured, with little or no fissuring, externally or internally."

The initial velocity of the missile is greater than has been generally supposed. It is estimated that it nearly equals that of a musket-ball. At a short distance, an arrow may perforate the larger bones without comminuting them, or cause a slight fissure only. It is not infrequent for an Indian to send an arrow fairly through the body of a horse or a buffalo, provided the missile enters one of the intercostal spaces and does not impinge on bone on the opposite side.

In inviting attention to the splendid collection of cases in this circular, we cannot but remark the conscientious care that has been taken in working up their detail. Minute description of the direction and course of a ball, an intelligent abridgment of the history of chronic cases, with careful post-mortem dissections, are the rule. We doubt very much whether the same number of cases would have been recorded in civil practice so well.

Among so much good work, it is difficult to particularize. Among the novelties in treatment may be mentioned Dr. McGill's essay on Periosteal Flaps; ice poultices as employed by Assistant-Surgeon W. H. Doughty; and the use of upholsterers' needles to shape a dressing for fractured tibia, as suggested by Assistant-Surgeon Fitzgerald.

Some of the more noteworthy cases have appeared in our periodicals, as well as in preceding circulars of the Surgeon-General's office. We may mention in this connection Otis' successful re-amputation at the hip-joint, and Gibson's successful excision at the hip. Of both of these cases full-page lithographs are given.

Sixty-nine figures accompany the text. We fear that the one with the inscription "testis enlarged and indurated by inflammation" could not be easily identified were the label of the block mislaid.

BOOKS AND PAMPHLETS RECEIVED.

A Treatise on the Diseases of Infancy and Childhood. Second Edition, Enlarged and thoroughly Revised. By J. Lewis Smith, M.D., Clinical Lecturer on Diseases of Children, and Professor in Bellevue Hospital Medical College, New York, etc. 8vo, pp. 741. Philadelphia, Henry C. Lea, 1872.

Clinical Lectures on the Diseases of Women. Vol. III. By Sir James Y. Simpson, Bart., M.D., D.C.L., etc. Edited by Alexander R. Simpson, M.D., etc. 8vo, pp. xxiii., 789. New York, D. Appleton & Co., 1872.

A Treatise on Diseases of the Bones. By Thomas M. Markoe, M.D., Professor of Surgery in the College of Physicians and Surgeons, New York, etc. 8vo, pp. 416. New York, D. Appleton & Co., 1872.

Catalogue of the Library of the Surgeon-General's Office, United States Army, with an Alphabetical Index of Subjects. Washington, Government Printing-Office, 1872.

Historical and Biographical Memoirs, Essays, Addresses, etc., written at Various Times during the Last Fifty Years, and now first published in their Collected Form. By George B. Wood, M.D., LL.D., Emeritus Professor of the Practice of Medicine in the University of Pennsylvania. 8vo, pp. 576. Philadelphia, J. B. Lippincott & Co., 1872.

Eighteenth Report upon the Registration of Births, Marriages, and Deaths in the State of Rhode Island. By Edward T. Caswell, M.D.

Forty-Sixth Annual Report of the Surgeons of the Massachusetts Charitable Eye and Ear Infirmary.

The Ethics of the Medical Profession. Read before the Sacramento Society for Medical Improvement. By Joseph F. Montgomery, M.D.

Proceedings of the Homœopathic Medical Society of Ohio, 1871.

Transactions of the Twenty-First Anniversary Meeting of the Illinois State Medical Society, held at Peoria, May 16, 1871.

Second Annual Announcement of the St. Paul's School for Medical Instruction.

GLEANINGS FROM OUR EXCHANGES.

THE HISTOLOGY OF CROUP.—Dr. F. Steudener, in the course of an article on this subject in *Virchow's Archives*, April 11, 1872, says that after death from croup the mucous membrane of the larynx and trachea will generally be found free from membrane, and covered only by a tenacious, purulent mucus. It is sometimes found to be in a condition of extreme hyperæmia, but just as frequently, and even in cases in which the symptoms have been severe during life, it has an anæmic appearance. It is generally deprived of its epithelium. Small patches of epithelium are, however, observed, especially about the mouths of the racemose glands. The membrane itself will be discovered to be infiltrated with round, finely granular cells, which are most numerous immediately beneath the surface, and least numerous in the vicinity of the elastic fibres. In certain portions, the compression exerted by them is sufficient to diminish the supply of blood. From the same cause, obstruction and consequent dilatation of the ducts are produced. A similar infiltration is noticed in the submucous tissue, especially in the parts immediately surrounding the racemose glands, and it has even been found to extend in some cases to the loose connective tissue on the outside of the cartilages. The examination of the false membrane shows that it consists largely of round, transparent cells, corresponding in form and size with those found within the mucous membrane. When treated with acetic acid, these cells are seen to contain a nucleus, and sometimes a nucleolus, and to be imbedded in a homogeneous or finely-granular substance. In some cases the cells are separated by a fine network of fibre, similar to the network of connective tissue which forms the framework of the lymphatic glands. Besides the cells above alluded to, epithelial cells are occasionally entangled in the false membrane.

In regard to the origin of the false membrane, Dr. Steudener believes that the epithelium of the larynx and trachea has no part in its formation, holding that it would be impossible for so dense a membrane to be formed by the delicate cylinder epithelia of these parts. We must also remember that the membrane is often renewed after the destruction of the epithelium. He says that invagination of pus-cells in epithelial cells has often been mistaken for endogenous growth. He adds, "We must therefore look upon the membrane of croup as really an exudation, caused by the migration (*auswanderung*) of white blood-corpuscles from the vessels into the mucous membrane, and thence to the surface, where, without the participation of the epithelium,—which is in great part thrown off,—the membrane is formed by the coagulation of a fibrinous exudation which accompanies the migration of the white blood-corpuscles."

LOSTORFER'S CORPUSCLES.—Dr. James R. Chadwick, in a letter to the *Boston Medical and Surgical Journal* for May 25, says that Professor Stricker has modified his opinions in reference to these bodies, in consequence of finding them in great quantity in a series of preparations from tuberculous and carcinomatous patients. They were also detected in the blood of persons with the following diseases: heart-disease, Bright's disease, anæmia, and lupus. The development of the corpuscles does not depend, therefore, upon the presence of syphilitic virus, but only upon a condition of the blood resulting from serious constitutional affections. Although they

can no longer be offered as pathognomonic indications of syphilis, their presence in the blood may have some weight in guiding us to a diagnosis in questionable cases of exanthemata, periostitis, and the like, *i.e.* between purely local lesions and similar manifestations of a constitutional malady, since they have been always found in secondary syphilis, even in cases where, the patients have been apparently in good health.

THE CAUSATION OF THE CHOKED DISK IN INTRACRANIAL DISEASE.—Dr. T. Clifford Allbutt (*The British Medical Journal*, April 27, 1872), after alluding to the importance of ophthalmoscopic examination in diseases of the nervous system, proceeds to discuss the causation and significance of the choked disk, or "stauungs-papilla," in intracranial disease. He says the evidence in favor of its production by excessive intracranial pressure is too strong to be lightly set aside, but he nevertheless rejects Von Gräfe's explanation, that the pressure resolves itself towards the base of the brain, and that it there exercises more or less compression upon the cavernous sinus, and hinders the ebb of the venous blood coming from the eye. He offers the following explanation of the causation of this pressure upon the disk. Schwalbe, Schmidt, and others have recently demonstrated that there exists a lymph-cavity between the outer and the inner sheath of the optic nerve, which lymph-cavity is continuous with the arachnoid cavity. This lymph-channel is now called the subvagal cavity; and Schwalbe's experiments prove that liquids under pressure readily find their way into it from the arachnoid cavity. Thus a pressure of accumulated fluid is liable to be set up around the optic nerve-entrance, where there is a limit to its further progress. The venous distention which is often observed at the same time is said by Dr. Allbutt not to be the cause of the swelling of the disk, but the consequence,—to be not a primary, but a secondary event.

CANCER OF THE TONSILS.—Mr. Alfred Poland, in the course of a paper in the April number of *The British and Foreign Medico-Chirurgical Review*, after alluding to the great rarity of cancer of the tonsils, and to its inevitably fatal termination, says that it may be either primary or secondary, or of the medullary or scirrhous form. In regard to the diagnosis of the disease, he adds that "in the early stage of both forms of the disease there is no distinguishing mark to guide us as to the nature of the disease. Enlargement of the tonsil is the only sign, and this does not arrest the attention of the patient, nor excite any suspicion in the mind of the surgeon, in consequence of the very frequent occurrence of subacute and chronic inflammation of the glands in a very great majority of persons. As the disease advances, the peculiar nature of the fatal disease begins to develop itself. When rapid, it steadily encroaches upon the fauces and pharynx, involves the lymphatic gland at the angle of the jaw, and afterwards the cervical glands, and soon destroys the patient. The scirrhous variety, on the contrary, may often fail to be recognized; but its slow progress, and its becoming ulcerated and excavated on its surfaces, render it less liable to be confounded with chronic hypertrophy and syphilitic ulceration. However, both these diseases have passed for cancer; and, on the other hand, cancer has been presumed when subsequent results have disproved the supposition. Excessive hardness, implication of the lymphatic glands, peculiar ulceration, fetid discharges, increasing growth, and peculiar cachexia, seem to be its characteristics."

In speaking of the treatment, Mr. Poland says that, whenever there is any reason to believe that there is a syphilitic taint, iodide of potassium should be given, and in any case it might be well to give the patient the benefit of the doubt. He refers approvingly to Dr. Cheever's operation in extirpating an encephaloid tonsil and an enlarged gland at the angle of the jaw, by an external incision in the neck. This operation appears to have been performed, however, by Langenbeck in 1865, and by Hueter in the same year. Caustics, and escharotics generally, only aggravate the pain, and are not recommended. The removal by the amygdalotome is generally out of the question. The écraseur may, however, be used, when the tumor has not attained a large size, and when the loop of the instrument can readily embrace the whole base of the tumor. But danger is attached to this operation

at all times, as the loop may include some of the important vital structures in the neighborhood. The tumor was in one case removed by means of a wire ligature which was thrown around it, and in others by incisions from within the mouth.

SPINA BIFIDA CURED BY REPEATED TAPPING AND PRESSURE.—At the meeting of the Lisbon Society of Medical Sciences on February 17 (*British Medical Journal*, March 23, 1872; from *O Correio Medico da Lisboa*, March 1, 1872), Dr. Camara Cabal communicated a case of congenital spina bifida which he had successfully treated. The patient was a child, aged twenty-five days, which was brought into the St. Joseph Hospital on November 21. It had in the lumbo-sacral region a swelling of forty centimetres in circumference, seventeen in vertical and ten in transverse diameter, and six in depth. It fluctuated, was transparent like a hydrocele, and appeared to contain not only fluid, but some solid body. Pressure on it did not produce convulsions, nor was there any paralysis or other symptom denoting a lesion of the spinal cord. It was therefore concluded that the tumor consisted exclusively of a hernia of the meninges, filled with fluid. On the 29th it was tapped with a Dieulafoy's trocar, and four hundred grammes of a transparent yellow fluid, containing an abundance of albumen, were removed. Compression was applied by means of adhesive plaster. No symptoms followed the operation, beyond some vomiting and loss of appetite. Some days later, the tumor having again enlarged, two hundred and fifty grammes of liquid were removed; and on December 14, four hundred and twenty-five grammes. On a fourth and a fifth occasion, puncture was performed at intervals of some days,—the quantities evacuated being respectively one hundred and seventy-five and one hundred and twenty-five grammes, and the fluid being more highly albuminous than before. After the last two operations, there was some meningitis, which yielded to ordinary remedies. The child made a good recovery, and was exhibited at the meeting at which the case was described.

SEA-SICKNESS, AND SOME OF THE MEANS OF RELIEVING IT.—Sir James Alderson, M.D. (*British Medical Journal*, March 9, 1872), in the course of some remarks on this subject, after alluding to Wollaston's explanation of sea-sickness, says, "The approximately rigid brain and vessels are carried downward, the blood remains by its own inertia, and the consequence is to crowd blood into the vessels of the brain, and so press with increased force, producing a certain shock. This shock and the attendant pressure produce sickness and vomiting. The vomiting thus induced is of a peculiar character,—very different from that proceeding from a common disordered stomach. It occurs in a spasmodic manner, and violent retching remains after the contents of the stomach have been ejected. The continuous retching seems to indicate the repeated action of the increased pressure." Referring to the experience of sufferers from sea-sickness, he says it is admitted by all that they are most sensible of the miserable feeling at the moment of the descent of the ship.

In regard to the means of averting sea-sickness, Dr. Alderson says the first point is wholly to avoid the upright posture. But it is necessary not only to take the recumbent position, but to lie in the right direction. The sufferer should lie down with his head towards the bows, when he will be, during the descent of the ship, in a position in which there is a tendency to reduce the natural supply of blood to the brain. On the other hand, if he reverses his position, then the blood will have a tendency to move from the feet to the head.

THE ORIGIN OF PUS.—Drs. Hoffmann and Langerhans have found (*Virchow's Archives*, April 11, 1872) that cinnabar, when injected into the blood-vessels, will be deposited in the cells of the connective tissue. Under ordinary circumstances, the amount deposited is so small that it might readily escape detection, but an accumulation of the cinnabar may be produced by exciting inflammation in a part. While, however, cinnabar exists under these circumstances in large amount in the cells of the connective tissue, the pus furnished by the part will be found to be entirely free from it. They are, therefore, inclined to the belief that the connective-tissue cells do not play an active part in the formation of pus, and agree with Cohnheim in thinking that up to the present time it has not been satisfactorily demonstrated that the pus-cells have any other source than the blood-vessels.

THE TREATMENT OF HEPATIC DROPSY.—Dr. W. R. Basham, in the course of an article having the above title (*The Practitioner* for April), says "there are cases, which experience will without difficulty discriminate, in which great advantage is derived from a small bleeding from the arm. Six or eight ounces at most may be taken, with speedy relief to the pulmonary distress, and a consequent subsidence of the venous tension and a diminution of the excessive anasarcaous effusion. The indications by which the venesection may be justified are found in the aspect of the patient and the state of the pulse. The features are dusky, the eyes are hazy, the lips have a venous color, the respirations are short and husky; moist wheezy murmurs are heard everywhere in the chest; the pulse is sometimes irregular, with some degree of fulness. In some cases it is small and sharp, while the heart's sounds are altered or modified by the presence or absence of atheromatous disease of the aorta, which is a frequent complication in these cases. . . . In the disease now under consideration, not only is there obstruction to the circulation through the liver by the morbid changes which its parenchyma have undergone,—an obstruction which is the parent of the abdominal dropsy,—but there is superadded pulmonary engorgement, difficult breathing, an increasing venosity, and consequently a more diffuse dropsy; serous effusion infiltrating the lower extremities. In such circumstances it is in vain to expect relief from powerful hydragogue purgatives alone."

DILATATION OF THE DUCT OF STENO IN A GLASSBLOWER.—Dr. Tillaux reports, in the *Bulletin Général de Thérapeutique Médicale et Chirurgicale* for April 15, the following curious case. The patient was a young man aged 20, a glass-blower by occupation, who presented a tumor about the size of a large nut, situated a little above and in front of the angle of the jaw. Upon pressure, it was found to disappear almost entirely, with a gurgling noise, but it reappeared when the patient distended the cheeks during expiration. The cyst was punctured and injected with milk, which, when pressure was afterwards made upon the tumor, could be seen to flow from the orifice of the duct of Steno, showing that the rare accident of dilatation of the duct had taken place in consequence of the continued distention of the cheeks in glassblowing. Dr. Tillaux says that the mechanism by which the duct of Steno opens into the mouth resembles that by which the ureter opens into the bladder. It is difficult, therefore, to understand how even air can penetrate the duct from without. The tumor disappeared entirely under continued compression systematically carried out. If this had failed, M. Tillaux would have had recourse to injections of iodine.

PULVIS GLYCYRRHIZÆ COMPOSITUS.—The want of a mild but effective aperient, of convenient form and without any of the disagreeable concomitants, induces Dr. David Page to call attention in *The Practitioner* for May to the compound liquorice powder of the Prussian Pharmacopœia, first introduced into practice in Scotland by Dr. J. Warburton Begbie. It is composed of the following constituents, so prepared as to form when incorporated an almost impalpable powder: Senna-leaves, ℥vj; liquorice-root, ℥vj; fennel-seed, ℥ij; sulphur, ℥ij; refined sugar, ℥xviiij. The usual dose is a small teaspoonful at bedtime in water, with which it is easily mixable, forming an agreeable draught. Children readily take it, with the belief that it is a sweetmeat. The motions produced by this powder are soft but well formed. It will be found especially useful in the treatment of constipation resulting from atony of the bowel.

PSEUDO-HYPERTROPHIC PARALYSIS.—Knoll had the opportunity (*Centralblatt*, April 13; from the *Wien. Medic. Jahrb.*, 1. Heft, 1872, 36. Stn.) of examining the muscles of a boy, aged 13, affected with this disease. He found that there was an increased growth of connective tissue, and that the muscles, instead of feeling soft, were very hard and firm. No traces of fatty degeneration were discovered. Dr. Knoll is therefore inclined to think that the fatty degeneration of the muscles, which has been described by authors, is a later stage of the disease. He says we are not yet in possession of a sufficient number of facts to enable us to decide the question whether this disease begins in the muscles themselves, or is the result of an affection of the central nervous system.

A DIAGNOSTIC SIGN OF EXTRA-CAPSULAR FRACTURES OF THE NECK OF THE FEMUR.—In a recent monograph upon the subject, M. Jankerguistel (*The Boston Medical and Surgical Journal*, May 23; from *L'Union Médicale*) arrives at the following conclusions:

1. Increase in the size of the great trochanter is an accurate and constant sign of extra-capsular fractures of the neck of the femur.
2. The presence of this sign, once ascertained, enables the surgeon to dispense with all those manipulations, often dangerous, always painful, which are necessary to determine crepitation or abnormal mobility.
3. The study of the sign alluded to permits accuracy of diagnosis, without rendering the prognosis more grave, or without compromising a cure.

VERATRIA IN PNEUMONIA.—Alt treated several cases of pneumonia (*Centralblatt*, March 30, 1872; from the *Deutsch. Archiv f. Klin. Med.*, ix.) with veratria, which was given in doses of from one-twentieth to one-twelfth of a grain until nausea or vomiting, or until a marked effect upon the pulse and temperature, was produced. In a very few cases the local inflammation diminished after the use of the medicine, but, as a general rule, an increase in extent or in intensity of the pneumonia took place, and this was observed even when the veratria appeared to exert an influence upon the pulse and temperature.

TINCTURE OF IODINE IN VOMITING.—Schneider of Offenbourg (*The Doctor*, April 1, 1872) administered tincture of iodine in doses of ten drops on sugar thrice daily to a patient who was troubled with salivation and vomiting after intermittent fever. Although the vomiting had proved rebellious to all other treatment, it yielded to tincture of iodine.

ILEUS SUCCESSFULLY TREATED BY ELECTRICITY.—Dr. Bogdán reports in the *Wiener Medizinische Presse*, March 10, 1872, a case of ileus successfully treated by electro-magnetism after the more usual remedies had failed to afford relief.

MISCELLANY.

MULTIPLE BIRTHS AND STERILITY.—In the course of an article "On Hereditary Transmission of Structural Peculiarities," in *The Medico-Chirurgical Review* for April, Dr. John Ogle introduces the following extract from a letter of Dr. Shorthouse, the author of an essay on the Physiology of Breeding: "If I am convinced of any one thing more than another relating to the function of reproduction, it is that impotency, sterility, the procreation of twins, and the tendency to abort, are but phases of the same conditions. The mere procreation of twins is no proof of extraordinary virility; on the contrary, it is coexistent with a condition like that of impotency. One of the families of thorough-bred horses is known as the Pantaloon line, because about thirty years ago a horse of that name was famous on the turf. It is a singular fact that the majority of his daughters have a tendency to barrenness; but, if they do happen to get a foal, they are very likely to produce twins, or to slip twins before they have gone the full period. They are either sterile or supernaturally fruitful. The sons, too, of Pantaloon were all but impotent. One of them (Windhound) covered thirteen mares one year at the Rawcliffe stud; eleven of these were barren, and one of the other two produced twins. Hobbie Noble, another son of Pantaloon, a brother of Windhound, was almost impotent in his early life, and quite so during his later years, all the mares put to him proving barren."

ALUMNI MEETINGS.—An opportunity was afforded, by the recent meeting of the American Medical Association in this

city, for reunions of the alumni of our two schools to take place. On Wednesday (May 8), at the Jefferson Medical College, Dr. Addinell Hewson welcomed the alumni of the school, who were attending the Convention, to their alma mater. After the conclusion of the address, they were entertained by Dr. Gross, Professor of Surgery, at his residence. On Thursday the alumni of the Medical Department of the University of Pennsylvania met at the hall of the University. Addresses were made by Professor Agnew and by Dr. William Pepper. Much satisfaction was felt and expressed at the meeting, that the present prospects of the University Hospital are so exceedingly favorable.

A VALUABLE LIBRARY NEARLY DESTROYED.—The library of the Medical Society of London was recently nearly destroyed by fire, which is supposed to have originated from a leakage in the gas-metre. Happily, the flames were discovered by the Registrar before they had made much headway, and the damage will be, it is said, comparatively small. Had the fire extended, a total destruction of some of the most valuable and curious books known would have occurred.

CHANGES AT THE MASSACHUSETTS GENERAL HOSPITAL.—Dr. Shaw has resigned his position as Resident Physician, and Dr. Norton Folsom has been appointed by the trustees of the institution in his place. Dr. Shaw will remain at the hospital until the autumn, when he will resume private practice. Dr. J. Collins Warren has been chosen one of the surgeons to out-patients, and Dr. Edward N. Whittier one of the physicians to out-patients.

SEA-WATER IN LONDON.—There is a project on foot, and there is reason to believe that it will be successful, to bring the sea-water direct from the ocean to London. The water is to be drawn from a pure source a quarter of a mile below low-water mark, west of Brighton, and raised by a series of pumping-engines to the summit of Dyke Hill, whence it will gravitate through enamelled pipes to London. The engineer's calculations are for the delivery of half a million of gallons every twenty-four hours. It is said that the charge at which the sea-water will be supplied will bring its use within the reach of all classes of the community.

It is also proposed to bring up to London sea-water in lighters from the mouth of the Thames, which is then to be discharged into floating-baths.

ANECDOTE OF DR. JENNER.—We take the following anecdote of this distinguished man from the *Medical Record*: The discoverer of vaccination, having discontinued his professional visits to a patient on account of her improved condition, sent a couple of ducks to the mother of the convalescent lady, accompanying the present with the following note:

"I've despatched, my dear madam, this scrap of a letter, To say that Miss Lucy is very much better;
A regular doctor no longer she lacks,
And therefore I've sent her a couple of quacks."

The lady addressed returned thanks with this:

"Yes, 'twas polite, truly, my very good friend,
Thus 'a couple of quacks' to your patient to send,
Since there's nothing so likely as 'quacks,' it is plain,
To make work for a 'regular' doctor again."

A BIOGRAPHY OF SIR JAMES Y. SIMPSON, BART.—The Rev. John Duns, M.D., F.R.S.E., is about to write the life of his friend Sir James Y. Simpson. It is said that he possesses the proper qualifications for the task.

MEDICAL AND SURGICAL HISTORY OF THE WAR.—The first part of the Medical and Surgical History of the War authorized by Act of Congress, approved July 28, 1866, and Joint Resolution of Congress No. 20, approved March 3, 1869,—compiled under direction of the Surgeon-General U.S.A.,—contains the completed medical statistics (726 pages) of sickness, mortality, and discharge from service for disability during the war, with three hundred and sixty-five pages of appended documents, consisting of extracts from the reports of medical directors of armies in the field, and other medical reports of historical value and interest; a chronological table of all battles and engagements of the war of which any report or record has been made, and five hundred pages of surgical matter, comprising all wounds and injuries of the head, neck, and chest, with a full discussion of each class. The material and data remaining on hand, much of which is already classified and tabulated for the completion of this work, will, with the utmost possible condensation, form two more parts similar to this, each containing an equal amount of medical and surgical matter. The succeeding medical portion will describe, discuss, and illustrate, by engravings and chromos, the symptoms, pathology, and treatment of those diseases which were the chief causes of the sickness and mortality recorded in the first portion, such as camp fever, camp diarrhoea and dysentery, pneumonia, camp measles, smallpox, and the like, with histories of cases, records of autopsies, and special reports. The surgical portion will comprise wounds and injuries of the abdomen and extremities, surgical operations (major amputations, 30,000; excisions of large joints, 5000; ligations of large arteries, 800) and their results, with a vast amount of information upon such surgical diseases as pyæmia, osteo-myelitis, hospital gangrene, tetanus, etc., with the illustrations which the importance of these subjects demands. A report upon hospital construction and administration, modes of transport of the sick and wounded, and the distribution of medical supplies during the war, will complete the work.

TOLERANCE OF TOBACCO.—A remarkable instance of tolerance by the human system of the excessive use of tobacco is given in *The Lancet* for May 11. A gentleman of Rotterdam, named Klaës, who was known as "the King of Smokers," has just died in his eightieth year, and is said to have consumed during his long life more than four tons of tobacco. The ruling passion was apparent in the will of the deceased, and in his eccentric request that his oak coffin might be lined with the cedar of his old cigar-boxes, and that a box of French caporal and a packet of old Dutch tobacco might be placed at its foot, and by the side of his body his favorite pipe, together with matches, flint and steel, and tinder.

EARLY PREGNANCY.—Mr. Thomas Pope, Cleobury Mortimer, in a communication to the *British Medical Journal*, states that during the course of his long practice, having been apprenticed in the year 1795, he attended three parturient patients, the age of each being less than thirteen years. The mothers and children did well. In the neighboring churchyard of Rock, Mr. Pope states that there is engraved on a tombstone the following lines:

"Ten years I was a maid,
One year I was a wife,
One day I was a mother,
And then I lost my life."

The muse evidently intended to show that the subject of his lyric had been a mother at the age of eleven years.

A DANGEROUS OPERATION.—The following singular case is reported in the *Medical Times and Gazette* for May 4: A surgeon was charged with having pulled out a boy's tooth against his will. He pleaded guilty. It was explained that a number of boys had annoyed the doctor, and that he seized one of them, took him into his house, and extracted one of his front teeth against his will. The sheriff fined the accused one pound or seven days. The fine was paid.

MORTALITY FROM SMALLPOX.—The number of deaths from smallpox in Philadelphia during the weeks ending May 18 and 25, 1872, were respectively 29 and 35, of which 38 were of minors.

MORTALITY OF PHILADELPHIA.—The following reports are condensed from the records at the Health Office:

	For the week ending	
	May 18.	May 25.
Consumption	43	50
Other Diseases of Respiratory Organs	38	26
Diseases of Organs of Circulation	14	21
Diseases of Brain and Nervous System	60	58
Diseases of the Digestive Organs	26	17
Diseases of the Genito-Urinary Organs	11	4
Zymotic Diseases	53	61
Cancer	6	9
Casualties	8	13
Debility	28	47
Intemperance	2	5
Old Age	13	10
Scrofula	2	0
Stillborn	13	16
Suicide	0	3
Syphilis	1	0
Tetanus	1	1
Unclassifiable	8	13
Unknown	1	0
Totals	328	354
Adults	161	178
Minors	167	176

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM MAY 5, 1872, TO MAY 18, 1872, INCLUSIVE.

- SWIFT, E., SURGEON.—By S. O. 104, War Department, A. G. O., May 3, 1872, to proceed to Washington, D.C., for the purpose of settling his accounts, and, upon completion, to return to his proper station.
- CAMPBELL, JNO., SURGEON.—By S. O. 107, War Department, A. G. O., May 7, 1872, to report to the Commanding General Department of the East, for assignment to duty.
- BAILY, J. C., SURGEON.—By S. O. 65, Department of California, May 4, 1872, assigned to duty as post-surgeon at Camp Halleck, Nevada.
- WEEDS, J. F., SURGEON.—By S. O. 93, Department of the South, May 6, 1872, granted leave of absence for twenty days.
- McELDERRY, H., ASSISTANT-SURGEON.—By S. O. 41, Department of the Columbia, April 22, 1872, assigned to duty as post-surgeon at Fort Klamath, Oregon.
- BARTHOLOMEW, H., ASSISTANT-SURGEON.—By S. O. 97, Department of the South, May 11, 1872, granted leave of absence for thirty days, with permission to apply to the Adjutant-General for an extension of thirty days.
- KOERPER, E. A., ASSISTANT-SURGEON.—By S. O. 87, Department of Texas, May 6, 1872, assigned to duty at Ft. McKavett, Texas.
- ROSE, GEORGE S., ASSISTANT-SURGEON.—By S. O. 76, Military Division of the Pacific, May 8, 1872, on surgeon's certificate of disability, granted leave of absence for two months, with permission to go beyond the limits of the Military Division of the Pacific.
- WILSON, WM. J., ASSISTANT-SURGEON.—By S. O. 72, District of New Mexico, May 6, 1872, assigned to duty at Fort Bayard, N.M.
- DELANEY, ALFRED, ASSISTANT-SURGEON.—By S. O. 72, c. s., District of New Mexico, assigned to duty at Fort Selden, N. M.
- WRISEL, D., ASSISTANT-SURGEON.—By S. O. 87, c. s., Department of Texas, assigned to duty at Fort Richardson, Texas.